

Student Name \_\_\_\_\_

Teacher Name \_\_\_\_\_

School \_\_\_\_\_

System \_\_\_\_\_

# MAAS



# TENNESSEE

## Tennessee Comprehensive Assessment Program Modified Academic Achievement Standards ~ Grade 8 Practice Test Version B



**PEARSON**

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# Introduction

## What is the TCAP Modified Academic Achievement Standards Test?

The TCAP Modified Academic Achievement Standards Test is a multiple-choice test designed to measure student achievement in certain skills in four content areas: Reading/Language Arts, Mathematics, Science, and Social Studies. The questions in this practice test are examples of items used in the actual test.

## What are the questions testing?

Questions are written to test student performance in state content standards. The State Content Standards and Performance Indicators were developed by the Tennessee Department of Education. These Standards and Performance Indicators are listed on the State Department of Education Web site at <http://www.state.tn.us/education/curriculum.shtml>.

## Who is eligible to be tested?

1. Students with a disability who are on an active IEP are eligible to take the MAAS.
2. Eligible students may have a disability in any of the Federal disability categories.  
Note: The category Functionally Delayed is a State category, but a student cannot be excluded from participation in this assessment based on category of disability. A student whose disability is classified as Functionally Delayed is eligible to participate in this assessment if determined eligible by the IEP team, but the student will be considered a non-participant and his scores cannot be counted for AYP. **A student classified as Functionally Delayed taking the test would not count toward the 2% cap because he is considered a non-participant.**
3. It is the decision of the IEP team whether or not a student with a disability should be assessed with the MAAS.

## How long will the tests take?

The length of the tests will vary, depending on the grade level. The time limits are generous and allow most students time to finish. Extended time limits only apply to students who are eligible for special or English Language Learner (ELL) accommodations.

## How will the tests be scored?

The test answers will be machine scored. Results from the test provide information about how well students performed on the content being tested.

**May calculators be used?**

Calculators may be used on Part 1 and 2 of the mathematics portion of the TCAP Modified Academic Achievement Standards Test (grades 3–8) as per system policy.

**Which test accommodations may be used?**

The TCAP Modified Academic Achievement Standards Test may be administered using various procedures that are used during the student’s daily educational program. Certain conditions must be met for students to be eligible for special and ELL accommodations.

**What is the purpose of the practice test?**

In a classroom learning session, these questions can be used to prepare students for the actual test. Teachers can use the practice test to help familiarize students with the format of test questions and how the actual test will be administered. This practice test can also be used to inform parents of the type of test their children will be taking.

**Here are some tips for preparing students for the test.**

Remind students to:

**Relax:** It is normal to be somewhat anxious before the test. Remember that the score is only one of a number of measures of performance.

**Listen:** Listen to and read the test directions carefully.

**Plan Use of Time:** First, answer all the questions you are sure about. Do not spend too much time on any one question. If a question seems to take too long, skip it and return to it later if you have extra time.

**Pause and Think:** If you are not sure how to answer a question, carefully read it again. Rule out answer choices that you know are incorrect and then choose from those that remain.

# Reading/Language Arts



## Part 1

**Directions** Read the story and poem. Then answer Numbers 1 through 12.

### Sowing Kindness

- 1 Hana carefully lifted the baby cucumber without dislodging it from the vine. “Look, *Halmunee*<sup>1</sup>, the cucumbers are already coming in! With all the rain we’ve been getting this year, we should have a wonderful crop.”
- 2 Grandmother beamed at her proudly. “Yes, the entire garden is prospering this year, especially the tomatoes and cabbage. You did an excellent job of adding compost as I taught you. It won’t be long before we are enjoying fresh produce with our meals.”
- 3 “If it weren’t for your patient lessons, I would be a terrible gardener,” laughed Hana.
- 4 “Speaking of terrible gardeners, did I ever tell you about your great-aunt Eun Sun? When I was growing up, she had a reputation for being the worst gardener in our village, perhaps in all of Korea. . . .”
- 5 “Excuse me, madam, but may I have a word with you?” a gravelly voice interrupted Grandmother’s current anecdote.
- 6 A tall, thin man wearing a dark-blue suit gazed at Grandmother expectantly, ignoring Hana’s presence.
- 7 “Certainly, sir; what can I do for you?” Grandmother responded with a smile.

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<sup>1</sup>**Halmunee:** Grandmother

*Go On* ►

- 8 “I am Sean McKenzie, and I assume that you are Mrs. Chun, deed-holder of this land?”
- 9 “Yes, I own the home at the front and all of the fenced land,” replied Grandmother, gesturing around her. “What is this about?”
- 10 “Madam, I am prepared to make you an extremely generous offer for the east side of your property — and, of course, your home would not be involved,” Mr. McKenzie glanced toward the modest cottage.
- 11 “Mr. McKenzie, I appreciate your consideration, but I’m not interested in selling any property,” Grandmother responded gently. “In fact, we are cultivating a lovely garden in the very area you’ve indicated.”
- 12 Mr. McKenzie frowned grimly. “This land is practically worthless, and my offer is substantial. I will be building a shopping mall right over there,” he gestured grandly to the right.
- 13 Grandmother sighed. “Thank you again, Mr. McKenzie, but I am simply not interested. I hope you have a lovely day.”
- 14 Mr. McKenzie stared at her momentarily before walking away.
- 15 “Now, where were we, dear Hana?” Mrs. Chun said.
- 16 “That man was not very polite,” Hana declared, ripping a weed out of the soil.
- 17 Her grandmother chuckled. “That’s true, dear, but we must always show kindness to others, regardless of their behavior toward us.”
- 18 The following Tuesday, Hana stopped by for another gardening afternoon. Inside, her grandmother was setting a tea tray before Mr. McKenzie.
- 19 Hana’s mouth pressed into a thin line. ‘That man is nothing but trouble,’ she thought, ‘and here he is trying to force Grandmother to sell our garden.’ However, Hana obediently removed her shoes to join them.
- 20 “Hello, Hana. I understand you play the guitar. My sister is a professional guitarist.” Mr. McKenzie smiled at Hana, who remained silent, studying him suspiciously.
- 21 “Yes, Hana, tell Mr. McKenzie about your band,” Mrs. Chun requested.



22 “I’m playing in a band with three other students from my school,” Hana  
replied reluctantly, avoiding Mr. McKenzie’s eyes.

23 “Music is a special gift, and you should cultivate it carefully, just like your  
garden!” Mr. McKenzie remarked. Hana glanced at him quickly and then at  
her grandmother.

24 Eventually, Mr. McKenzie looked at his watch. “Thank you for your  
hospitality, Mrs. Chun,” he said as he stood, preparing to leave. “I understand  
your attachment to your property, and I will find another way to complete my  
shopping center.”

25 Grandmother shook his hand. “It’s been a pleasure visiting with you!”

26 After Mr. McKenzie left, Hana stared at her grandmother in disbelief. “How  
did you convince him to stop pestering you about the land?” Hana asked.

27 “Remember this, *Sonnyeo*<sup>2</sup>,” Grandmother responded quietly. “In Korea,  
we are taught that it is always best to be courteous and kind to others — no  
matter what!” Her eyes twinkled wisely at Hana as she opened the door to the  
garden path.

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<sup>2</sup>**Sonnyeo:** Granddaughter

# Grandpa's Garden



Today I watch as  
you work in your garden,  
your careful hands touching  
the fragile young plants,  
5 moving them along,  
much as you guided us  
into the freedom of adulthood.

Perhaps one day,  
just like you, Grandpa,  
10 I will have exactly  
the right skills,  
all the knowledge  
of a life well lived,  
a world well loved,  
15 a garden well tended.

The door to wisdom  
will be open to me,  
and I will walk into  
that bright space —  
20 smiling as you smile,  
sure that the knowledge  
I have gained will light the  
paths of new generations —  
those, like me, on a bold  
25 new trail through a world  
of adventure and discovery —  
expecting that the garden I plant  
will ripen with new fruit.

**1** Read this excerpt from Paragraph 2 of “Sowing Kindness.”

“Yes, the entire garden is prospering this year, especially the tomatoes and cabbage. You did an excellent job of adding compost as I taught you. It won’t be long before we are enjoying fresh produce with our meals.”

Which sentence uses produce in the same way that it is used in the excerpt?

- A** Many gold mines are closed because they no longer produce the metal.
- B** We worked for three weeks to produce a flier for our hiking club.
- C** The grocery store just received a shipment of produce.

*Go On ►*

**2** What kind of conflict is found in “Sowing Kindness”?

- F** person vs. person
- G** person vs. self
- H** person vs. environment

**3** In “Sowing Kindness,” when Grandmother uses the word *Sonnyeo*, it indicates to the reader that she most likely

- A** needs more help around her home.
- B** remembers gardening as a child.
- C** grew up speaking another language.

**4** How does Grandmother best indicate that she values her Korean culture?

- F** She treats Mr. McKenzie politely and offers her hospitality, even when he is rude.
- G** She is curious, and she wants to hear more about Mr. McKenzie’s plans.
- H** She wants others to be happy, so she tells Mr. McKenzie that she cannot sell her land.

**5** What moral dilemma does Hana face in “Sowing Kindness”?

- A** She has difficulty being friendly to a man she dislikes.
- B** She fears that her grandmother will lose her land.
- C** She is afraid to tell people she plays guitar in a band.

**6** Read Lines 12 through 15 from “Grandpa’s Garden.”

all the knowledge  
of a life well lived,  
a world well loved,  
a garden well tended.

**In these lines, the author uses repetition to**

- F** exaggerate Grandpa’s ability to teach gardening.
- G** emphasize the fullness of Grandpa’s experiences.
- H** compare Grandpa’s achievements with those of the speaker.

**7** Read Lines 27 and 28 of “Grandpa’s Garden.”

expecting that the garden I plant  
will ripen with new fruit.

**The speaker uses this metaphor to show that he**

- A** knows good health begins with eating well.
- B** believes life will be rewarding.
- C** has become an expert at working outdoors.

*Go On ►*

**8** What will the speaker in “Grandpa’s Garden” most likely do when he is an adult?

- F** grow his own plants
- G** help build hiking trails
- H** teach others what he knows

**9** Both the story and the poem use a garden to symbolize a grandparent’s desire to

- A** display courage.
- B** nurture others.
- C** make friends.

**10** What is one important way that the story is different from the poem?

- F** The story focuses on events, and the poem expresses a feeling.
- G** The story is about politeness, while the poem is about skills.
- H** The story has more dialogue, and the poem has a plot.

**11** How do the authors of the story and the poem reveal the characters of Grandmother and Grandpa?

- A** The character of Grandmother is revealed by her actions, while the character of Grandpa is revealed by what the speaker says about him.
- B** The character of Grandmother is revealed by what Hana thinks about her, while the character of Grandpa is revealed by what he says.
- C** Both the character of Grandmother and the character of Grandpa are revealed by their own thoughts.

**12** Which theme is found in both the story and the poem?

- F** Young people should listen carefully to adults.
- G** Families have much to teach one another.
- H** Making a change in one's life can be frightening.

*Go On ►*

**Directions** Read and answer Numbers 13 and 14.

**13** Reggie has built some birdhouses and wants to sell them. What would be the best way for Reggie to advertise this information with his neighbors?

- A** an online website with comments from previous customers
- B** an e-mail explaining why birdhouses are important
- C** a flier with photographs of birdhouses he has made

**14** Candace is writing a report about the importance of planting native trees and shrubs in city parks. She wrote the following notes:

1. Trees and shrubs that come from a local area provide adequate food and shelter for wildlife.
2. Nonnative trees, such as pine trees, grow as tall as forty feet but do not have flowers.
3. Trees that naturally grow in an area are much less costly to maintain.

Which note is not related to Candace's report?

- F** Fact 1
- G** Fact 2
- H** Fact 3

**Directions**

Desmond wrote this essay. It contains mistakes. Read the essay. Then answer Numbers 15 through 25.

## Modern Falconer

1 A huge shadow passed over me. I felt a brush of air, and before I could look up, the falcon had landed on Grady's gloved fist. My first thought was of knights on horseback with motionless, hooded falcons on their fists.

2 My dad and I were watching Grady Haggerty's flight demonstrations. Grady, who has curly red hair and a beard, is a master falconer. He operates a bird-of-prey preservation society. Grady is an expert at rehabilitating injured birds of prey. He is also a conservationist who works on planting trees in the forest. The birds are returned to the wild, if possible. In fact, Grady has been able to return more than eighty percent of the birds he has helped.

3 The bird perched on Grady's fist was a Peregrine falcon. Grady explained that he wore a gauntlet, a long leather glove on his hand and arm to protect himself.

4 I carefully approached Grady to get a closer look at the bird. I looked the falcon in the eye; the bird had a hypnotic, unblinking stare. Grady then told me an astonishing fact about falcons. In a head-first dive, falcons can reach speeds of 200 miles per hour. That fact alone means they're truly amazing birds.

5 I asked, "Mr. Haggerty, will this falcon be able to return to the wild?" Grady explained that this falcon had imprinted on humans. Therefore, she would always depend on humans for food and company. Grady said that she would live with him for the rest of her life.

6 Grady moved the falcon to a rail alongside a huge hawk, an eagle, and a white owl. He explained that he takes the "nonreleaseable" birds of prey when he goes to demonstrations. These birds make a lasting impression on people who observe their natural behavior.

7 I looked again at that piercing stare of the falcon. I knew I would remember these birds for a long time. They're so impressive because of the physical strength and the speed that they display.

*Go On ►*

- 8 Dad asked me, “Do you think that these birds are still wild?”
- 9 I thought before I answered. “Before these birds were injured, they flew free and made nests in the forests and the fields. Now the birds are still wild, but they know it is safe here.”
- 10 Dad agreed with me.

**15** Which sentence from Paragraph 2 does not support the ideas of the paragraph and should be deleted?

- A** My dad and I were watching Grady Haggerty’s flight demonstrations.
- B** Grady, who has curly red hair and a beard, is a master falconer.
- C** He is also a conservationist who works on planting trees in the forest.

**16** Read this sentence from Paragraph 3.

Grady explained that he wore a gauntlet a long leather glove on his hand and arm to protect himself.

**Choose the revision of the sentence that correctly uses an appositive phrase.**

- F** Grady, explained that he wore a gauntlet a long leather glove on his hand and arm, to protect himself.
- G** Grady explained that he wore a gauntlet, a long leather glove, on his hand and arm to protect himself.
- H** Grady explained, that he wore a gauntlet, a long leather glove on his hand and arm to protect himself.

**17** Read this sentence from Paragraph 4.

I looked the falcon in the eye the bird had a hypnotic, unblinking stare.

**Choose the correct way to revise the run-on sentence.**

- A** I looked the falcon in the eye, the bird had a hypnotic, unblinking stare.
- B** I looked the falcon in the eye. The bird had a hypnotic, unblinking stare.
- C** I looked the falcon in the eye but the bird had a hypnotic, unblinking stare.

**18** Read these sentences from Paragraph 5.

I asked, “Mr. Haggerty, will this falcon be able to return to the wild?”  
Grady explained that this falcon had imprinted on humans.

**Which sentence should be placed between the two sentences?**

- F** I knew that these birds live in all parts of the world.
- G** I disliked the idea of these birds being kept in captivity.
- H** I was interested in watching the birds of prey hunt for food.

**19** Which sentence from the essay correctly uses the underlined word?

- A** My first thought was of knights on horseback with motionless, hooded falcons on there fists.
- B** That fact alone means their truly amazing birds.
- C** They’re so impressive because of the physical strength and the speed that they display.

*Go On ►*

**20** This essay can be described as mainly

- F** narrative.
- G** persuasive.
- H** technical.

**21** Which information, if added to the essay, would best support Desmond's ideas?

- A** an explanation of how the birds imprint on humans
- B** a map showing where the birds roost at night
- C** a graph of how much the birds eat each month

**22** This essay would be most enjoyed by people who are interested in

- F** birds that can do tricks.
- G** taming wild animals.
- H** rescuing birds of prey.

**23** Desmond wants to learn more about Mr. Haggerty’s work. Which source will provide the most reliable information?

- A** a magazine article about a bird-of-prey preservation group
- B** an Internet blog sponsored by a bird-of-prey club
- C** an interview with a person who has visited a bird-of-prey organization

**24** The author wrote this essay mainly to

- F** describe a falcon exhibition at a local zoo.
- G** entertain readers by explaining the work of a falconer.
- H** persuade people that falcons are dangerous creatures.

**25** Choose the best replacement title for this essay.

- A** A Falcon Story
- B** Food for the Falcons
- C** Falconer to the Rescue

*Go On ►*

**Directions** Read and answer Numbers 26 and 27.

**26** Read this paragraph.

In order to join a serious mountain-climbing expedition, a person must participate in many smaller practice climbs. Do not expect others to be able to come to your aid; climbers must be self-sufficient. Mountains often exceed the range of cell-phone towers, so cell phones will not work in many areas where people climb. Planning ahead is essential for any mountain-climbing expedition.

**Choose the sentence from the paragraph that is an example of inductive reasoning.**

- F** In order to join a serious mountain-climbing expedition, a person must participate in many smaller practice climbs.
- G** Do not expect others to be able to come to your aid; climbers must be self-sufficient.
- H** Mountains often exceed the range of cell-phone towers, so cell phones will not work in many areas where people climb.

**27** Charlene knew that all those nights spent studying were worth the effort because her diploma read

- A** *femme fatale.*
- B** *cum laude.*
- C** *alma mater.*

**Directions**

Dawn will give this speech during her English class. Read the speech and answer Numbers 28 through 37.

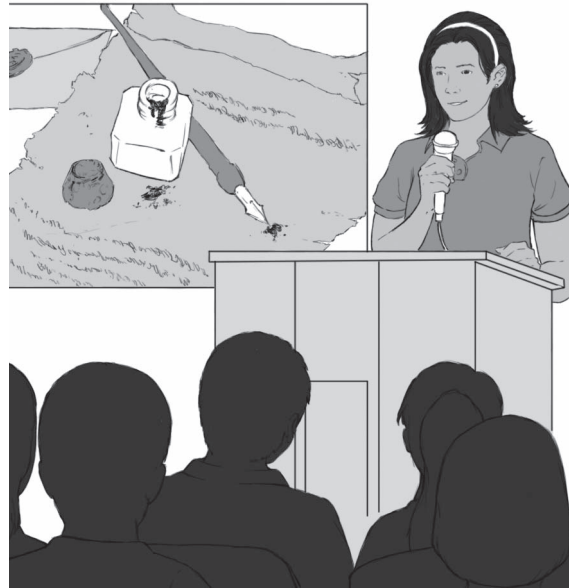
## Write a Letter!

1 When was the last time you actually wrote a letter? Have you ever mailed a letter? United States Postal Service statistics show that the number of letters Americans mail has decreased since 2002. The trend in mailing fewer letters is likely to continue.

2 I believe the widespread use of e-mail and cheap long-distance calling have made letter writing less popular. Most people prefer instant communication instead of writing and mailing letters. Pressing the send button on an e-mail is easy. Writing and mailing a letter requires more time and effort. With a letter, the envelope must be addressed and stamped. Then the envelope must be dropped into a mailbox. After that, the letter will still take at least two days to get to its destination.

3 Consider how we use newer forms of communication to talk with family members and friends who do not live near us. Phone calls are a great way to have instant conversations. Unfortunately, phone conversations are not often memorable. The biggest drawback with phone calls is that they cannot be saved or printed. However, letters can be saved. We can read them again and again. The letters can help us feel close to the people who sent them.

4 E-mail provides a way to communicate with family members and friends. People can easily type quick notes on computers. The people receiving e-mail may respond with a few comments. The exchanges may not take more than a minute or two. Sending and receiving e-mail is a speedy way to communicate. However, it is not a substitute for meaningful conversation.



*Go On ►*

5 Although letters take longer to write and mail, they are a more memorable way to communicate than phone calls or e-mails. Writing letters allows us to learn about ourselves as we express our thoughts. The people who receive our letters learn about our beliefs as well. People often save handwritten letters for many years.

6 In fact, some letters written by presidents and other world leaders have been carefully preserved. These letters have provided important details about famous historic events. Some letters by famous people have even been published in books. In some cases, these letters also give us glimpses into the daily lives of these people. The letters provide greater understanding of these peoples' thoughts and actions.

7 We may think that because we are not famous, others will not be interested in reading our letters. I disagree. My grandmother recently showed me some letters my great-grandfather wrote to his family while he served in World War II. I was fascinated while reading those letters. My grandmother had told me many entertaining stories about her father. Through reading his letters, I realized how thoughtful he really was. He missed his family while he was away from home. Future generations of my family can learn about my great-grandfather because his letters were saved.

8 I believe that we should all make an effort to write letters more often. Remember, good letters do not have to be long letters. Letters do take more time than e-mails or phone calls. However, when we put our thoughts into letters, we create more than just notes. We create meaningful memories that can be read again and again.



**28** Which sentence from the speech is one of Dawn’s main points?

- F** United States Postal Service statistics show that the number of letters Americans mail has decreased since 2002.
- G** Future generations of my family can learn about my great-grandfather because his letters were saved.
- H** I believe that we should all make an effort to write letters more often.

**29** A common bias that Dawn presents in her speech is that e-mail

- A** requires many steps for completion.
- B** offers instant conversation.
- C** is not meaningful communication.

*Go On ►*

- 30** Dawn uses this note card to present information during her speech.

Letter writing — expresses feelings and can be saved

Which note card should she use next?

**F**

Quick forms of communication

**G**

Tasks required to mail a letter

**H**

Importance of letters written by famous people

- 31** Dawn brainstormed ideas with a group of students when developing this speech. In order for the group to brainstorm productively, it was most important for them to

- A** use all ideas discussed in some part of the speech.
- B** share their speech ideas in an orderly way.
- C** allow one person to decide which ideas should be used in the speech.

**32** The organizational structure of Paragraphs 2 through 5 can best be described as

- F** cause-effect.
- G** comparison-contrast.
- H** problem-solution.

**33** Which sentence from the speech is a fact?

- A** People can easily type quick notes on computers.
- B** Some letters by famous people have even been published in books.
- C** I was fascinated while reading those letters.

**34** The main purpose of this speech is to

- F** describe for listeners several forms of communication.
- G** persuade listeners to take the time to compose handwritten letters.
- H** explain to listeners why e-mail is a popular form of communication.

*Go On ►*

**35** In order to engage the audience during her speech, Dawn should

- A** adjust her speaking rate as needed.
- B** gaze at one section of the audience.
- C** maintain a serious expression.

**36** Which statement is a critique of the speech?

- F** The speaker should have presented more facts about other modern forms of communication.
- G** According to the speaker, letters reveal more about the character of the writer than e-mail does.
- H** The speaker states that the use of faster forms of communication is to blame for the recent decline in letter writing.

**37** Who is most likely the intended audience for Dawn's speech?

- A** her classmates
- B** new students
- C** elementary teachers

**STOP** 

**DO NOT  
MARK  
ON THIS  
PAGE**

## Part 2

**Directions** Read the passage. Then answer Numbers 38 through 47.

### Mexico's Cave of Giant Crystals

- 1 An amazing sight is hidden deep within the earth, about 1,000 feet below a Mexican desert. The Cave of Crystals is filled with enormous white-looking crystals. They jut out of the floor and ceiling. The largest crystal is about thirty-six-feet long and weighs fifty-five tons. The crystals are so big that people look tiny when they stand next to them.



Carsten Peter/Speleoresearch & Films/National Geographic Stock

Trying to scramble over jagged crystals

- 2 The Cave of Crystals was found by accident in 2000. It is located in the Naica Mine, which produces the minerals silver, zinc, and lead. For years, the mining company had been pumping water out of the mine in order to collect these minerals. Once the water was gone, two miners discovered the crystals in this unique cave.

- 3 Although the Cave of Crystals is beautiful, it is also dangerous. It is extremely hot and humid inside. Without protective clothing and gear, a person can stay inside the cave for only a few minutes. The scientists who explore this cave wear bulky suits filled with ice cubes. These special suits prevent the scientists' bodies from becoming too hot. The scientists must also wear breathing masks. Even with wearing this protective gear, they cannot stay inside the cave very long. Therefore, much of the cave will probably remain unexplored.
- 4 Scientists, however, have been able to discover how the giant crystals grew. The Cave of Crystals is part of a cave system that sits above a pool of magma. Magma is hot liquid that is found deep in the earth. Long ago, the caves filled with water, which the magma heated. The crystals formed slowly from minerals in the water. One scientist, Juan Manuel Garcia-Ruiz, has concluded that the crystals must have been growing for over a thousand years.
- 5 Other amazing caves are located near the Cave of Crystals, but the crystals inside these caves are much smaller. Crystals also began growing here when the caves filled with water that was heated by the magma beneath them. However, the water in the caves changed temperature at some point in time, which made the crystals stop growing. Because the Cave of Crystals is deep underground, the water in this cave stayed the same temperature for thousands of years. This constant temperature allowed the crystals to grow as large as they are.
- 6 The fact that the water has been pumped out of the cave means that the crystals have stopped growing. Someday, when the mine closes, the cave may fill with water again. If so, the crystals may also begin growing again; although, no human may be able to reenter the cave to see them.
- 7 For now, people have a wonderful opportunity to view photographs and learn about one of the most astonishing and isolated places on our planet.

*Go On ►*

**38** Read Paragraph 7.

For now, people have a wonderful opportunity to view photographs and learn about one of the most astonishing and isolated places on our planet.

What does isolated mean in the paragraph?

- F** remote
- G** distinct
- H** faint

**39** Which organizational structure is used in Paragraphs 4 through 6?

- A** comparison-contrast
- B** problem-solution
- C** cause-effect

**40** What caused the crystals in the cave at Naica to grow so large?

- F** the rapid pumping of water out of the cave
- G** the time spent in heated water in the cave
- H** the removal of minerals from the cave

**41** Based on the passage, what can the reader infer about the crystals in the Naica cave?

- A** The crystals formed in the cave will decrease in size.
- B** The crystals will be removed from the cave.
- C** The crystals found in the cave are rare.

**42** Which question is not answered in the passage?

- F** What is the environment like inside the Cave of Crystals?
- G** How did miners discover the Cave of Crystals?
- H** When will water be returned to the Cave of Crystals?

**43** Which detail from the passage best supports the idea that these cave crystals are an extreme size?

- A** The crystals are growing out of the cave floor and ceiling.
- B** The crystals make people standing next to them look tiny.
- C** The crystals have been growing for thousands of years.

*Go On ►*

**44** Choose a secondary source for researching the Cave of Crystals.

- F** an encyclopedia article about the crystals
- G** a journal written by a scientist who has visited the cave
- H** an interview with an expert on crystals

**45** Why did the author write this passage?

- A** to explain the importance of studying crystals
- B** to inform people about a scientific discovery
- C** to encourage people to visit a natural place

**46** Which medium would be the most appropriate to use to teach the public about the crystals in the Cave of Crystals?

- F** a website that lists facts about the crystals
- G** a television commercial for tourists that advertises the crystals
- H** a documentary film that explains the formation of the crystals

**47** Celina wants to learn more about crystal formation. Which source would be the most appropriate for her to use?

- A** an encyclopedia entry titled “How Crystals Begin”
- B** a magazine article titled “Mining for Crystals”
- C** a website titled “Unusual and Rare Crystals”

**Directions** Read and answer Numbers 48 and 49.

**48** Floyd is presenting his science project about the effectiveness of mosquito repellents. Which visual aid would best support Floyd's presentation?

- F** a diagram of the body parts of a mosquito
- G** a chart listing products used to prevent mosquito bites
- H** a table showing different types of mosquitoes

**49** A group is working to present a speech. Amal must make sure each student has the chance to practice his or her part of the speech. His role is best described as the

- A** timekeeper.
- B** reporter.
- C** information gatherer.

*Go On ►*

**Directions**

Renee wrote this report for history class. It contains mistakes. Read the report and answer Numbers 50 through 60.

## The Ancient Olympic Games

(1) The Olympics is a competition that shows the skills of the finest athletes in the world. (2) The first Olympic Games were held in Olympia, Greece, in 776 B.C. (3) At the time, Greek warriors needed to be quick and stronger to defend their territories. (4) Olympic events were designed to test their skills. (5) For example, one of the many events tested a participants skill with a javelin, or spear. (6) After the first competition, the Olympic Games took place every four years. (7) The games in peace and friendship brought citizens together.

(8) Ancient Olympic events included challenging sports that were practacle in Greek life. (9) The long jump is an example of one such event. (10) The Greek countryside is very rocky and steep. (11) A warrior might have needed to jump across a deep, narrow canyon during a battle. (12) This need led to the Olympic long-jump contest being born. (13) Over the years, events such as wrestling and chariot racing was added to the Olympics.

(14) Winners of the events were invited to dine at a special banquet and were given a crown made from wild olive branches. (15) They received great respect and honor.

(16) The ancient Olympic Games ended in 394 A.D., after the Romans conquered Greece, and they did not start again until 1896. (17) Many things have changed since the original Olympic games. (18) However one tradition the lighting of the Olympic torch continues. (19) Every four years, the torch is lit in Olympia, Greece, to signal the beginning of another round of games. (20) Carry the torch to the nation hosting the games is an honor shared by many runners. (21) During the opening ceremonies, the last torch runner enters the stadium and lights the new Olympic flame. (22) Once the flame is lit, he continues to burn until the games end.

(23) Every four years, the Olympic flame burns brightly once again. (24) Athletes from all over the world give performances as they compete for honors. (25) The Olympic Games is still a symbol of peace and friendship among nations.

**50** Read Sentence 3.

At the time, Greek warriors needed to be quick and stronger to defend their territories.

**What is the correct way to write the underlined part of this sentence?**

- F** strong
- G** strongest
- H** most strong

**51** Read Sentence 5.

For example, one of the many events tested a participants skill with a javelin, or spear.

**What is the correct way to write the underlined word?**

- A** participants'
- B** participant's
- C** participants's

**52** Read Sentence 7.

The games in peace and friendship brought citizens together.

**What is the correct way to revise the sentence?**

- F** The games brought citizens in peace and friendship together.
- G** The games brought citizens together in peace and friendship.
- H** The games brought in peace and friendship citizens together.

*Go On ►*

**53** Read Sentence 8.

Ancient Olympic events included challenging sports that were practacle in Greek life.

Which underlined word is not spelled correctly?

- A** included
- B** challenging
- C** practacle

**54** Read Sentences 11 and 12.

A warrior might have needed to jump across a deep, narrow canyon during a battle. This need led to the Olympic long-jump contest being born.

Which is the best way to combine these sentences?

- F** Because a warrior might have needed to jump across a deep, narrow canyon during a battle, the Olympic long-jump contest was born.
- G** A warrior might have needed to jump across a deep, narrow canyon during a battle, yet this need led to the Olympic long-jump contest being born.
- H** While a warrior might have needed to jump across a deep, narrow canyon during a battle, the Olympic long-jump contest was born.

**55** Read Sentence 13.

Over the years, events such as wrestling and chariot racing was added to the Olympics.

**What is the correct way to write the underlined part of this sentence?**

- A** will be added
- B** were added
- C** is added

**56** Read Sentences 14 and 15.

Winners of the events were invited to dine at a special banquet and were given a crown made from wild olive branches. \_\_\_\_\_, they received great respect and honor.

**Which transition word or phrase belongs in the blank?**

- F** Additionally
- G** Nonetheless
- H** For instance

**57** Read Sentence 18.

However one tradition the lighting of the Olympic torch continues.

**Choose the sentence revision that uses commas correctly.**

- A** However, one tradition, the lighting of the Olympic torch continues.
- B** However, one tradition, the lighting of the Olympic torch, continues.
- C** However one tradition, the lighting of the Olympic torch, continues.

*Go On ►*

**58** Read Sentence 20.

Carry the torch to the nation hosting the games is an honor shared by many runners.

What is the correct way to write the underlined part of this sentence?

- F** Carried the torch
- G** Carrying the torch
- H** To carrying the torch

**59** Read Sentences 21 and 22.

During the opening ceremonies, the last torch runner enters the stadium and lights the new Olympic flame. Once the flame is lit, he continues to burn until the games end.

Which word should replace he in Sentence 22?

- A** it
- B** they
- C** correct as is

**60** Read Sentence 24.

Athletes from all over the world give \_\_\_\_\_ performances as they compete for honors.

Which adjective would fill in the blank to provide the most vivid description?

- F** breathtaking
- G** interesting
- H** attractive

**Directions** Read and answer Numbers 61 through 63.

**61** What is most likely the purpose of an advertisement about the need for recycling waste materials?

- A** to inform viewers about different methods of removing waste materials
- B** to describe for viewers the most common types of waste materials
- C** to persuade viewers to dispose of waste materials responsibly

**62** Read this sentence.

Wiley proofread his article again while he did not want the same problem he had with the previous edition of the student newspaper.

Choose the word that best replaces the underlined word.

- F** therefore
- G** furthermore
- H** because

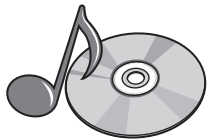
**63** Choose the most focused research topic.

- A** renewable energy sources used in western Tennessee
- B** coal mining techniques used throughout the United States
- C** generating power from the Industrial Age to the present

*Go On ►*

**Directions**

Read this assignment for a science project. Then answer Numbers 64 through 71.

**Mr. Wagner's 8th-Grade Science Project*****The Effect of Music on Plants***

Does music have an effect on seed growth?

For three weeks — from March 30 – April 21 — student scientists will conduct an experiment to test the effect of classical piano music\* on the growth of lima bean seeds. Students will conduct this experiment individually. The project counts as a major test grade, and students will be required to do the following:

- follow instructions exactly,
- keep an experiment journal,
- bring the sprouts that grow from the seeds and discuss findings in a final presentation, and
- turn in a written report.



© Katly/Stockphoto #7067241

\*CDs with the classical piano music and CD players will be provided for students to use.

**Setting Up Your Experiment****Materials provided for the experiment:**

- 4 small yogurt containers (6 ounces each)
- 4 lima bean seeds
- potting soil
- water
- centimeter ruler

**Instructions for planting:**

1. Fill each container 3/4 full with potting soil.
2. Plant one seed slightly below the surface of the soil in each container.
3. Moisten the soil with 4 teaspoons of water.
4. Label two containers C1 and C2, for controls 1 and 2.
5. Label the 2 other containers E1 and E2, for experimental 1 and 2.

## **Caring for Your Lima Bean Seeds and Sprouts at Home**

- Select two rooms that are on the same side of your home. The rooms should receive direct sunlight, and the temperature should stay at 75 degrees Fahrenheit.
- Place C1 and C2, the control group, on the windowsill, or next to a window, in one room.
- Place E1 and E2, the experimental group, on the windowsill, or next to a window, in the other room.
- Moisten the soil in each container with 20 milliliters, or 4 teaspoons, of water once every 5 days.
- Do not use plant food.
- For 2 hours each evening, use the CD player to play the classical music CD in the room with the experimental group.
- The volume for the music should be set at the middle level on the CD player.
- Every 3 days, measure the height of the sprouts\*, in centimeters.
- Record the growth of the sprouts for each group in your experiment journal.
- If possible, take photographs to show the growth of the sprouts.

\*When the seeds first begin to grow, they are called “sprouts.”

## **Presenting Your Findings (April 24 – 26)**

Each student will present the outcome of his or her three-week study. Presentations should be 3 – 5 minutes long and include the following:

- the containers with the sprouts grown for the experiment
- a chart showing the growth of the sprouts during the experiment
- a 500-word report that explains the results of the experiment and states whether or not music affects seed growth
- photographs of the progress of the sprouts (optional)

**The plants, charts, photographs, and reports will be left on display in the classroom for two weeks.**

*Go On ►*

**64** Read this sentence from the section labeled “Caring for Your Lima Bean Seeds and Sprouts at Home.”

Place C1 and C2, the control group, on the windowsill, or next to a window, in one room.

In the sentence, the word control means that the plants will not

- F** receive as much water.
- G** be exposed to music.
- H** grow very well.

**65** Read this sentence from the “Presenting Your Findings (April 24 – 26)” section.

Each student will present the outcome of his or her three-week study.

What does the word outcome mean in the sentence?

- A** process
- B** results
- C** facts

**66** What should a student do after labeling his or her containers?

- F** place the containers in two different rooms
- G** add four teaspoons of water to each seed
- H** put potting soil in the containers

- 67** Based on the assignment, what does Mr. Wagner consider an important part of science experiments?
- A** playing classical music
  - B** keeping written records
  - C** producing healthy plants
- 68** Which section of the assignment tells a student how to report the plant growth?
- F** Setting Up Your Experiment
  - G** Caring for Your Lima Bean Seeds and Sprouts at Home
  - H** Presenting Your Findings (April 24 – 26)
- 69** Which organizational structure is used in the section “Caring for Your Lima Bean Seeds and Sprouts at Home”?
- A** cause-effect
  - B** problem-solution
  - C** sequential

*Go On ►*

**70** Which question is not answered by the assignment?

- F** What kind of seeds will be used?
- G** How often should the sprouts be watered?
- H** Does music make plants grow taller?

**71** What would be the best source for learning more about growing plants?

- A** a manual about gardening in urban areas
- B** a newspaper article about annual rainfall
- C** a scientific report about cactus flowers

**Directions** Read and answer Numbers 72 and 73.

**72** Which sentence is not written correctly?

- F** The song “My Place on Huntington Street” has become very popular again.
- G** *Our Town* featured a performance by local actor Roy Haskins.
- H** I have read Mark Twain’s short story A Curious Dream several times.

**73** Look at this photograph.



Choose the conflict that is best expressed by the photograph.

- A** person vs. self
- B** person vs. person
- C** person vs. technology

**STOP** 

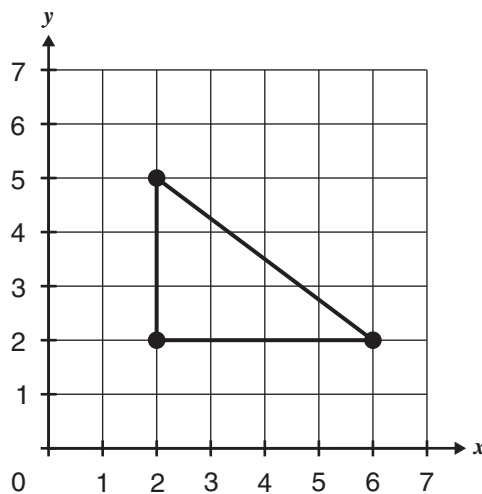
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# Mathematics



## Part 1

- 1** Look at the triangle on this grid.



$$a^2 + b^2 = c^2$$

Which measurement is closest to the perimeter of this triangle?

- A** 12 units
- B** 11 units
- C** 4 units

*Go On ►*

**2** Which number is rational?

**F**  $\frac{7\pi}{4}$

**G** 2.121121112 . . .

**H**  $\frac{2\sqrt{11}}{3\sqrt{11}}$

**3** This list shows the sizes and prices of three different packages of pet snacks.

- Package A: 32 ounces for \$29
- Package B: 24 ounces for \$22
- Package C: 36 ounces for \$32

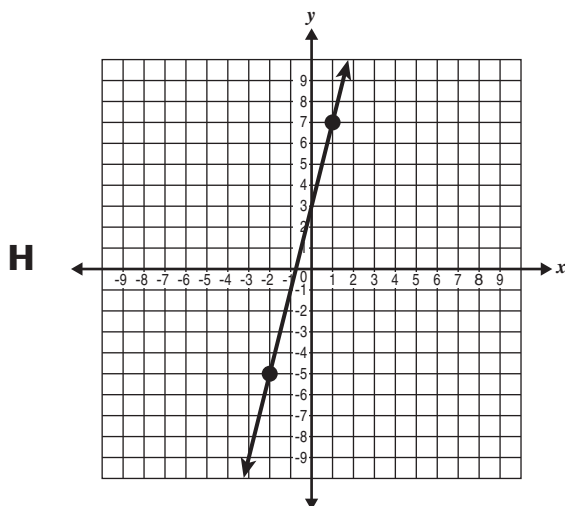
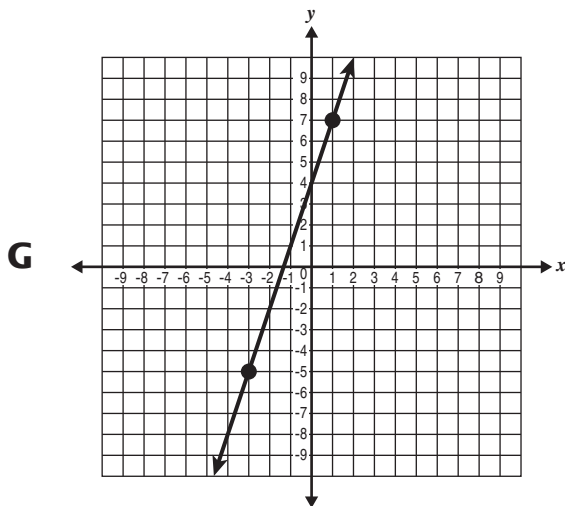
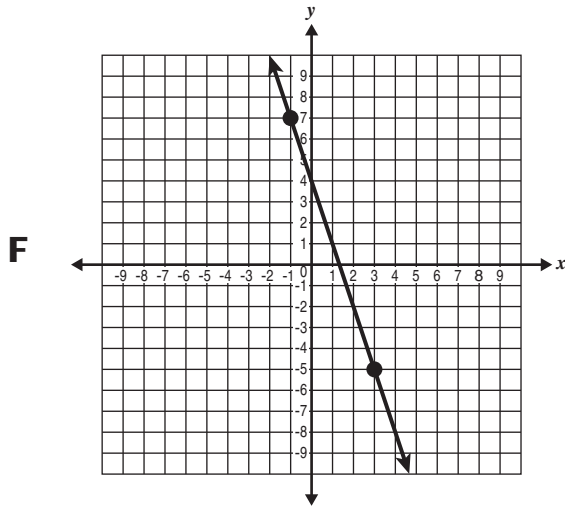
Which package has the lowest price per ounce?

**A** Package A

**B** Package B

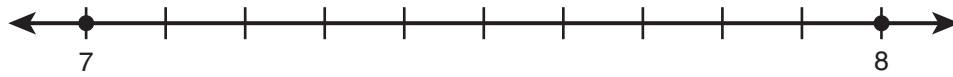
**C** Package C

**4** Which graph best represents the equation  $y = 3x + 4$ ?



*Go On ►*

- 5** Look at this number line.



Which value could be represented by a point between 7 and 8 on this number line?

- A**  $\sqrt{56}$
- B**  $\sqrt{48}$
- C**  $\sqrt{67}$

- 6** A sound wave travels at approximately 343 meters per second.

$$\text{distance} = \text{rate} \times \text{time}$$

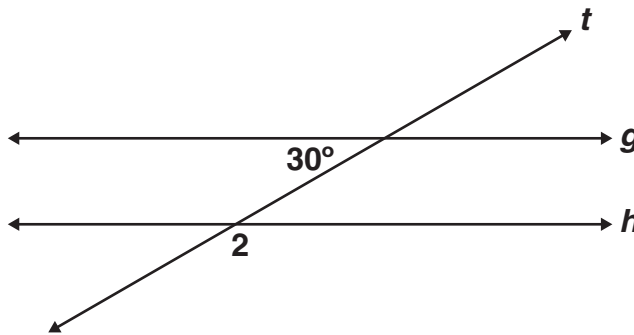
Which measurement is closest to the total amount of time a sound wave takes to travel 2,000 meters?

- F** 1.72 seconds
- G** 2.92 seconds
- H** 5.83 seconds

- 7** A red blood cell is  $8 \times 10^{-6}$  meter long. A skin cell is  $3 \times 10^{-5}$  meter long. How many times the length of the red blood cell is the length of the skin cell?

**A** 0.375  
**B** 3.75  
**C** 37.5

- 8** Lines  $g$  and  $h$  are parallel lines cut by Transversal  $t$ , as shown in the figure.



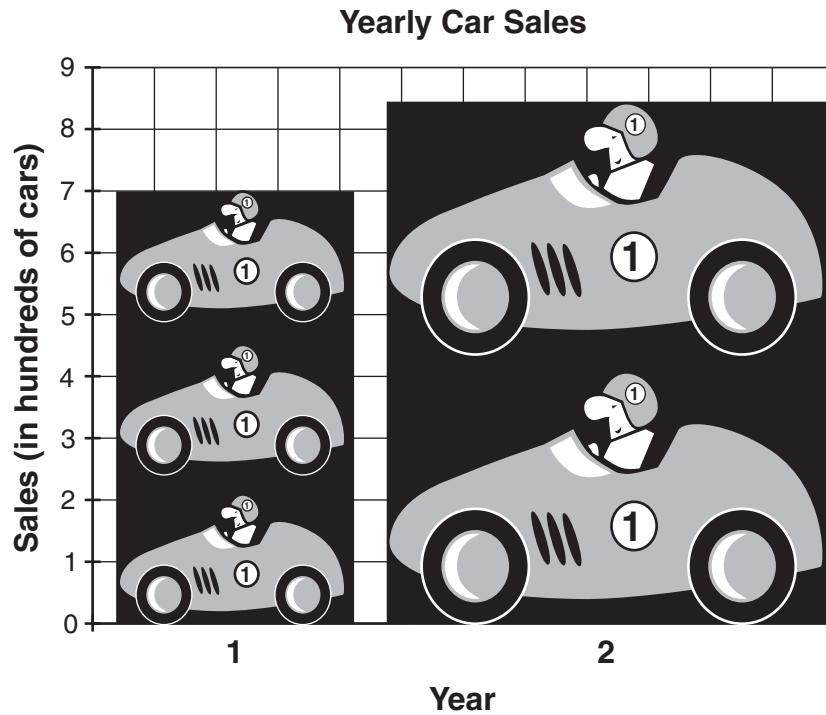
What is the measure of Angle 2?

**F**  $30^\circ$   
**G**  $60^\circ$   
**H**  $150^\circ$

*Go On ►*

9

The manager of a car dealership created this graph to show that his dealership sold more cars in Year 2 than in Year 1.



Which statement best describes how this graph misrepresents the change in sales?

- A** The graph shows a decrease in the number of cars sold because the dealership went from selling three small cars to selling two large cars.
- B** Using different-sized cars for each year makes it appear as if the sales in Year 2 were much greater than they were.
- C** The graph shows the number of cars sold instead of the number of dollars earned from sales.

- 10** Look at this function.

$$f(x) = x^3 + \frac{1}{4}x - \sqrt{5}$$

Which term identifies the function as nonlinear?

**F**  $-\sqrt{5}$

**G**  $\frac{1}{4}x$

**H**  $x^3$

- 11** Steven exercises each morning.

- He jogs at a rate of 8 miles per hour for 0.75 hour.
- He walks at a rate of 3 miles per hour for 0.5 hour.

$\text{distance} = \text{rate} \times \text{time}$
--

What is the total number of miles Steven jogs and walks each morning?

**A** 7.5 miles

**B** 8.8 miles

**C** 13.8 miles

*Go On ►*

- 12** The star Vega is about  $2.38 \times 10^{14}$  kilometers from Earth. The star Antares is about  $4.94 \times 10^{15}$  kilometers from Earth. How much farther from Earth is the star Antares than the star Vega?

- F**  $2.560 \times 10^{14}$  km  
**G**  $4.702 \times 10^{15}$  km  
**H**  $5.178 \times 10^{15}$  km

- 13** Look at this table of values.

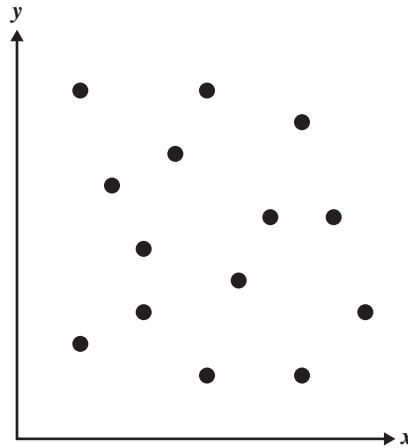
$x$	$y$
0	0
3	1
6	2

$$m = \frac{(y_2 - y_1)}{(x_2 - x_1)}$$

What is the slope,  $m$ , of the line represented by the values in this table?

- A**  $-\frac{1}{3}$   
**B**  $\frac{1}{3}$   
**C** 3

- 14** Which type of correlation is best represented in this scatterplot?



- F** no correlation
- G** negative correlation
- H** positive correlation

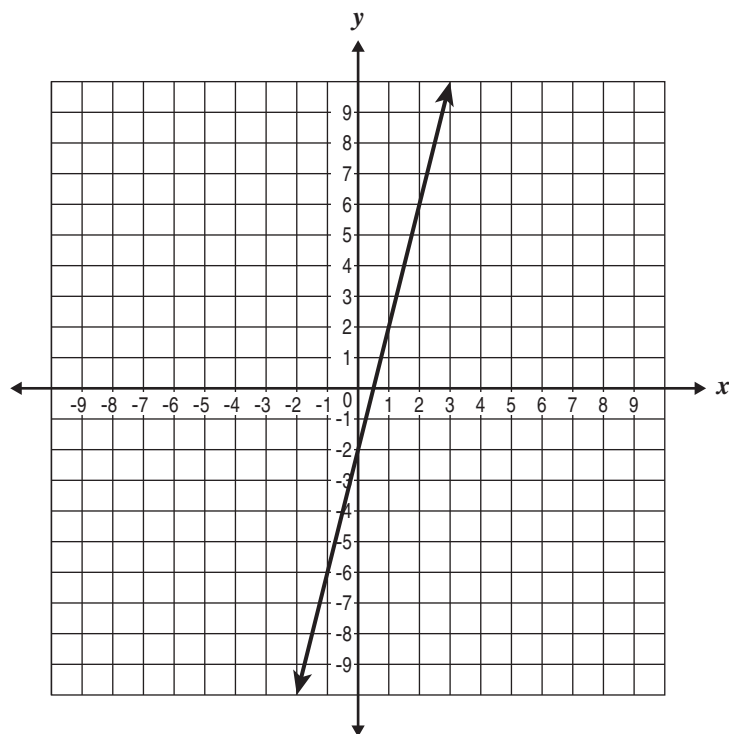
- 15** What is the value of  $y$  in the solution to this system of equations?

$$\begin{aligned} 2y - x &= -8 \\ 5y + x &= -6 \end{aligned}$$

- A**  $-7$
- B**  $-4$
- C**  $-2$

*Go On ►*

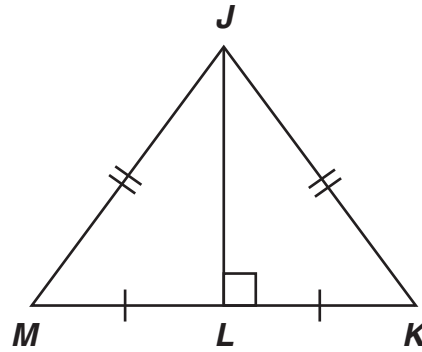
- 16** Look at this graph of the function  $y = 4x - 2$ .



What is the value of  $y$  in this function when  $x = 2$ ?

- F** 0
- G** 1
- H** 6

- 17** An isosceles triangle is shown.



$$a^2 + b^2 = c^2$$

- The length of Line Segment  $JK$  is 10 feet.
- The length of Line Segment  $JL$  is 8 feet.

What is the perimeter of the isosceles triangle?

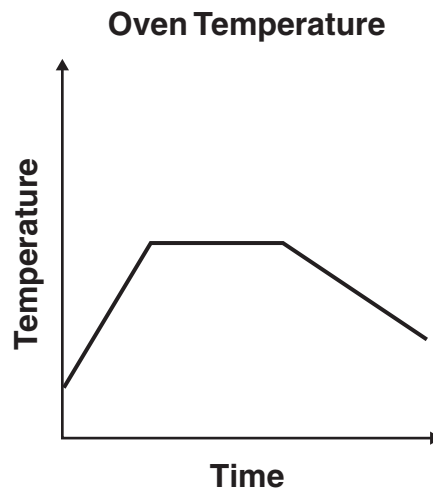
- A** 22 feet
- B** 32 feet
- C** 56 feet

- 18** Which number has the greatest value?

- F** 8.5
- G**  $1^9$
- H**  $\frac{15}{2}$

*Go On ►*

- 19** This graph represents the temperature inside an oven over a period of time.



Which statement best describes the change in temperature?

- A** The temperature increased, was constant, and then decreased.
- B** The temperature was constant and then decreased.
- C** The temperature increased and then decreased.

**20** This list shows the dimensions of two rectangular soccer fields.

- Large: 100 yards long and 60 yards wide
- Small: 30 yards long and 15 yards wide

$$a^2 + b^2 = c^2$$

To the nearest yard, how much longer is the diagonal of the large soccer field than the diagonal of the small soccer field?

- F** 54 yards
- G** 74 yards
- H** 83 yards

**21** What is the value of  $(6 \times 10^4)(2 \times 10^3)$ ?

- A**  $1.2 \times 10^7$
- B**  $1.2 \times 10^8$
- C**  $1.2 \times 10^{12}$

**22** Which set of ordered pairs represents the function  $f(x) = \frac{1}{2}x + 2$ ?

- F**  $\{(-4, -7.5), (-1, -1.5), (2, 4.5)\}$
- G**  $\{(-4, 0), (-1, 1.5), (2, 3)\}$
- H**  $\{(-4, 0), (-1, 3), (2, 6)\}$

*Go On ►*

- 23** The owner of a dance studio claims that the ratio of students to teachers in the dance classes at her studio is at most 8 to 1. This table shows the daily class sizes at this studio.

**Daily Class Sizes**

Class	Number of Students	Number of Teachers
Monday	10	1
Tuesday	15	1
Wednesday	18	2
Thursday	2	1
Friday	3	1

Which statement best explains why the student-to-teacher ratio used by the owner of the dance studio is misleading?

- A** More than half of the classes have more than 8 students per teacher.
- B** Almost half of the classes have fewer than 8 students per teacher.
- C** The age of each student attending is not given.

- 24** Look at these functions.

$$f(x) = 3x - 6$$
$$g(x) = 2x - 4$$

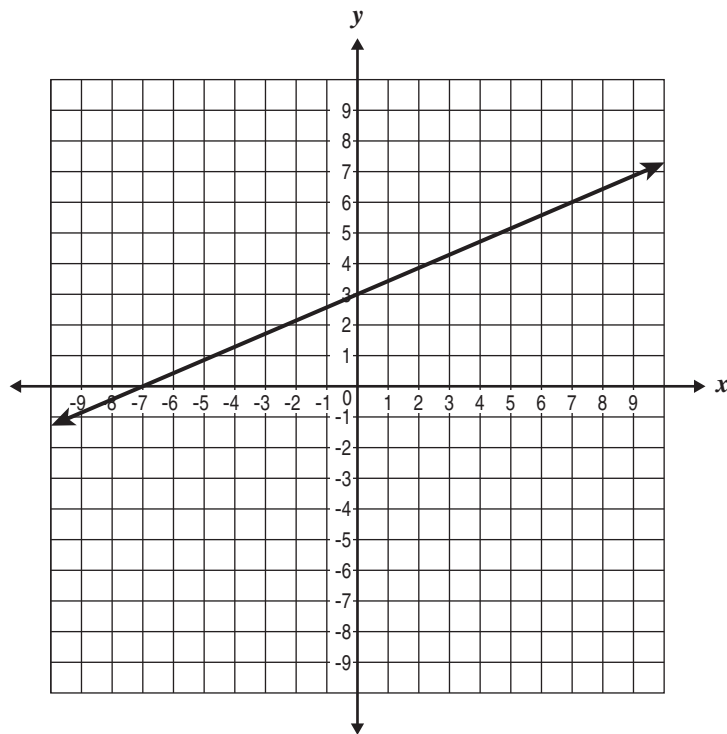
If  $f(x) = g(x)$ , what is the value of  $x$ ?

- F** -10
- G** -2
- H** 2

**25** Which statement is true?

- A** The number  $(\sqrt{2})^2$  is rational.
- B** The number  $\sqrt{44}$  is rational.
- C** The number  $\frac{9}{10}$  is irrational.

**26** Look at this graph.



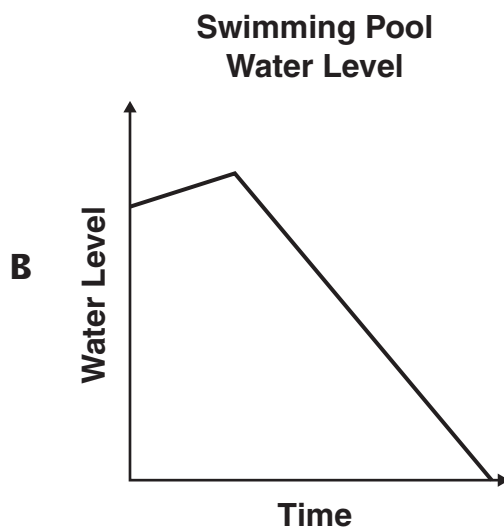
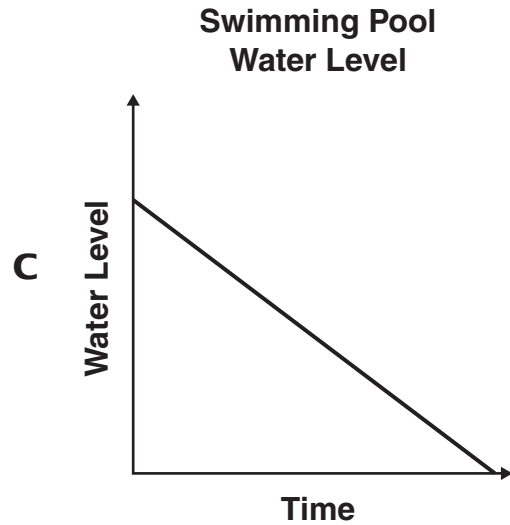
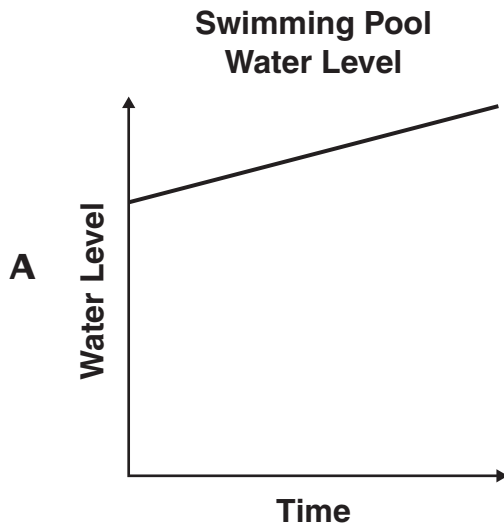
Which ordered pair is best represented by the x-intercept of this line?

- F**  $(-7, 0)$
- G**  $(3, 0)$
- H**  $(0, -7)$

**STOP** 

## Part 2

- 27** Kirk drained the water from a swimming pool. Which graph could represent the relationship between the water level in the swimming pool and the time that passed after Kirk began draining the pool?



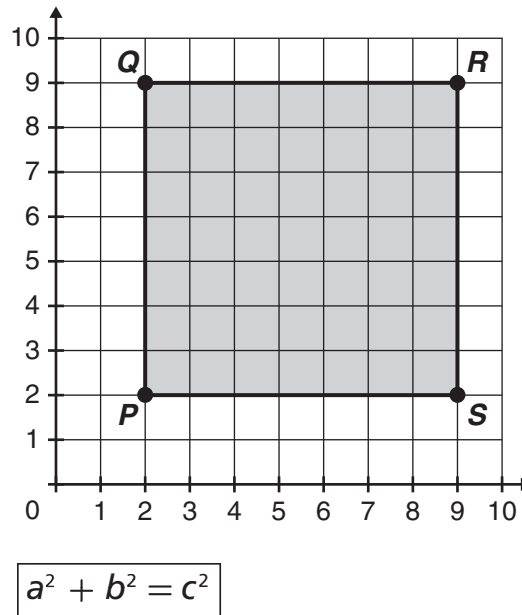
- 28** Look at these functions.

$$f(x) = 2x - 8$$
$$g(x) = 4(x + 6)$$

If  $f(x) = g(x)$ , what is the value of  $x$ ?

- F**     $-16$   
**G**     $-8$   
**H**     $-7$

- 29** Square  $QRSP$  is shown on this grid.



Which is closest to the straight-line distance between Points  $Q$  and  $S$ ?

- A**    14 units  
**B**    10 units  
**C**    7 units

*Go On ►*

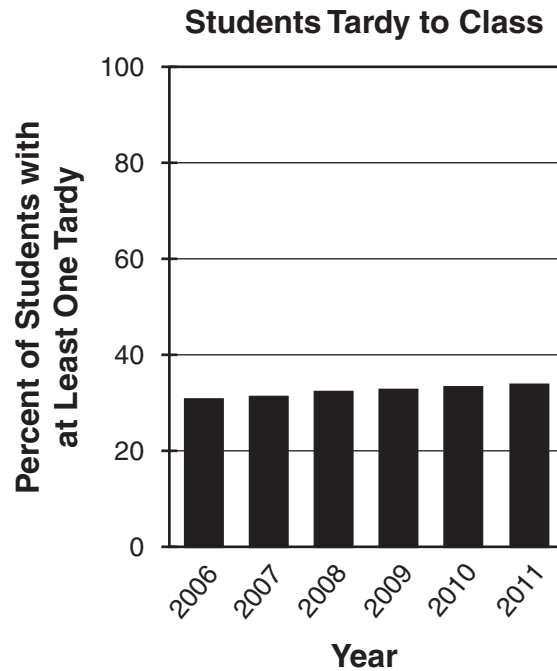
**30** Which number is irrational?

**F**  $8.\bar{3}$

**G**  $\frac{\sqrt{56}}{2}$

**H** 0.0079

- 31** This graph supports a claim in a school newspaper article. The article claims that the percentage of students tardy to class has not changed since 2006.



Which statement best explains why this graph is misleading?

- A** The bars on the graph should have more space between them.
- B** The graph does not include the percentage of students who are absent.
- C** The scale on the vertical axis makes it difficult to see that the percentage is increasing.

*Go On ►*

- 32** Look at this table of values.

$x$	$y$
-2	0
0	3
4	9
6	12

Which equation is represented by the values in this table?

- F**  $-3x + 2y = 6$   
**G**  $2x - 3y = 6$   
**H**  $2x + 3y = 6$

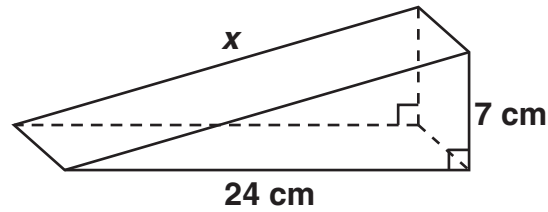
- 33** Which list shows numbers in order from least to greatest value?

- A**  $3.9, \sqrt{15}, \frac{15}{4}$   
**B**  $\sqrt{15}, \frac{15}{4}, 3.9$   
**C**  $\frac{15}{4}, \sqrt{15}, 3.9$

- 34** What is the slope of the line represented by the equation  $y = 9x + 7$ ?

- F** 9  
**G** 7  
**H**  $\frac{7}{9}$

- 35** The lengths of two edges of this three-dimensional prism are shown in centimeters.



$$a^2 + b^2 = c^2$$

What is the length of Edge  $x$ ?

- A** 23 centimeters
- B** 25 centimeters
- C** 31 centimeters

- 36** Jared compared the specials at the three restaurants listed.

- Restaurant A: Buy 1 pizza for \$12 and get a second pizza at half price.
- Restaurant B: Buy 5 pizzas for \$35 and get one pizza free.
- Restaurant C: Buy 3 pizzas for \$21.

At which restaurant can a customer get 6 pizzas for the lowest total price?

- F** Restaurant A
- G** Restaurant B
- H** Restaurant C

*Go On ►*

**37** Which equation represents a linear function?

**A**  $y = -2x - 3$

**B**  $y = 5x^2 + 12$

**C**  $y = |3x| + 7$

**38** This table shows the prices of three packages of CDs.

**CD Packages**

Package	Number of CDs	Price
R	70	\$13.00
S	60	\$12.50
T	80	\$15.99

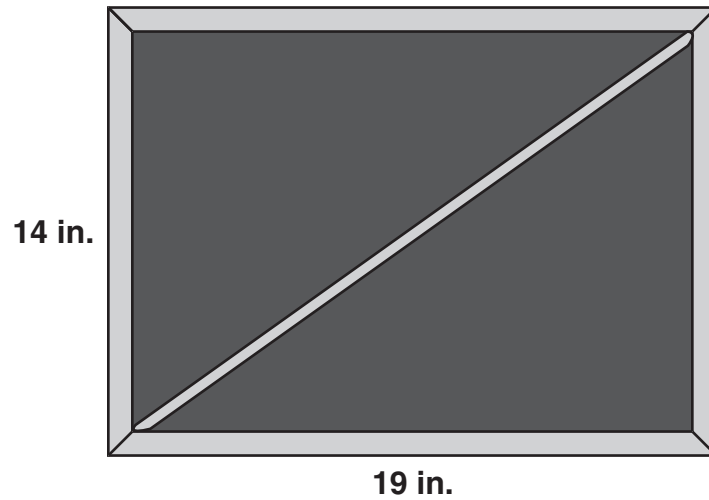
Which package offers the lowest price per CD?

**F** Package R

**G** Package S

**H** Package T

- 39** Adriana has a box with a rectangular bottom. She placed a stick diagonally along the bottom of the box. This diagram shows the dimensions for the bottom of the box.



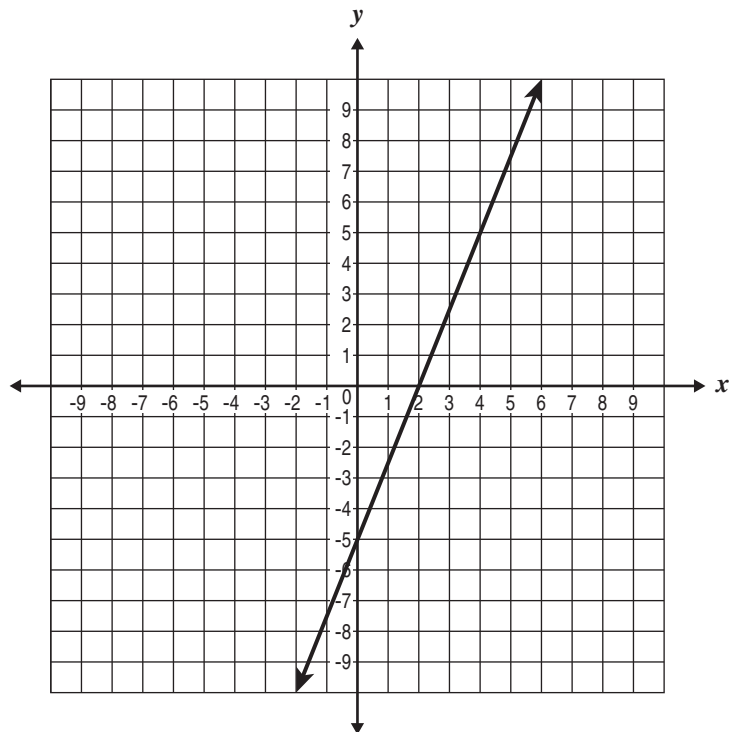
$$a^2 + b^2 = c^2$$

Which measurement, in inches, is closest to the longest possible length for the stick?

- A**  $\sqrt{165}$
- B**  $\sqrt{266}$
- C**  $\sqrt{557}$

*Go On ►*

- 40** Look at this graph of a function.



What appears to be the y-intercept of this function?

- F**  $(0, 2)$
- G**  $(0, -5)$
- H**  $(-5, 0)$

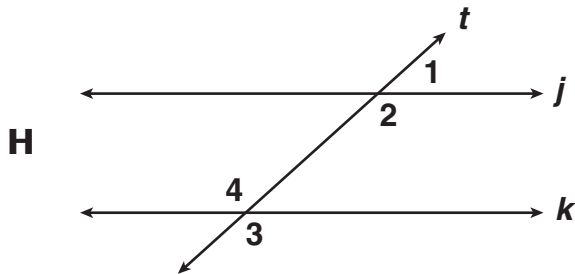
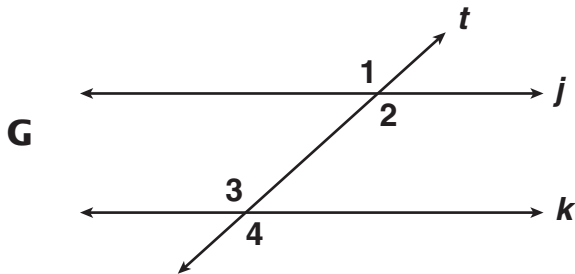
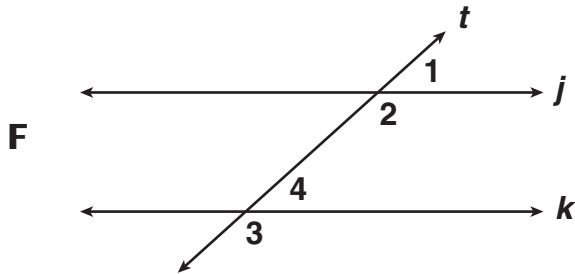
- 41** Which expression can be used to find the quotient of 0.000000048 and 16,000,000?

- A**  $\frac{4.8}{1.6} \times 10^{-15}$
- B**  $\frac{4.8}{1.6} \times 10^1$
- C**  $(4.8 - 1.6) \times 10^{-15}$

**42** Look at these characteristics of a figure.

- Line  $j$  and Line  $k$  are parallel lines.
- Line  $j$  and Line  $k$  are cut by Transversal  $t$ .
- The measure of Angle 1 is equal to the measure of Angle 2.
- The measure of Angle 3 is equal to the measure of Angle 4.

Which figure appears to contain all of these characteristics?



*Go On ►*

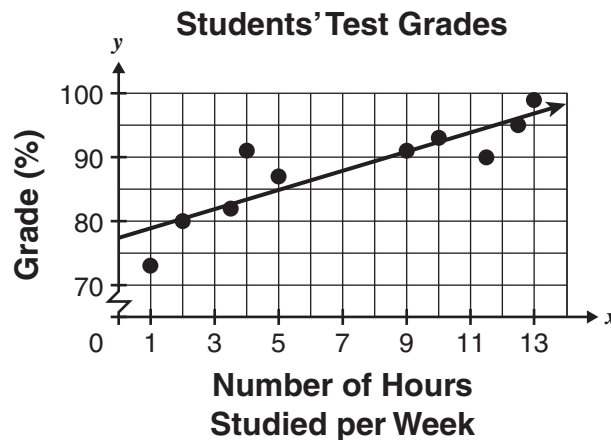
- 43** A truck driver traveled for 4 hours. He traveled a total of 250 miles.

$$\text{distance} = \text{rate} \times \text{time}$$

What is the average rate at which the truck driver traveled during the 4 hours?

- A** 63.3 miles per hour
- B** 62.5 miles per hour
- C** 55.0 miles per hour

- 44** This graph shows the relationship between the test grades for ten students and the numbers of hours the students studied per week.



Based on the graph, which is the best prediction of the test grade for a student who studied for 7 hours per week?

- F** 98%
- G** 91%
- H** 88%

**45** One mole of calcium contains  $6.0 \times 10^{23}$  atoms of calcium. How many atoms are there in  $1.5 \times 10^{-6}$  mole of calcium?

**A**  $4.5 \times 10^{17}$

**B**  $7.5 \times 10^{29}$

**C**  $9.0 \times 10^{17}$

**46** What is the value of  $x$  in the solution to this system of linear equations?

$$4x - 3y = 3$$

$$4x - 4y = 8$$

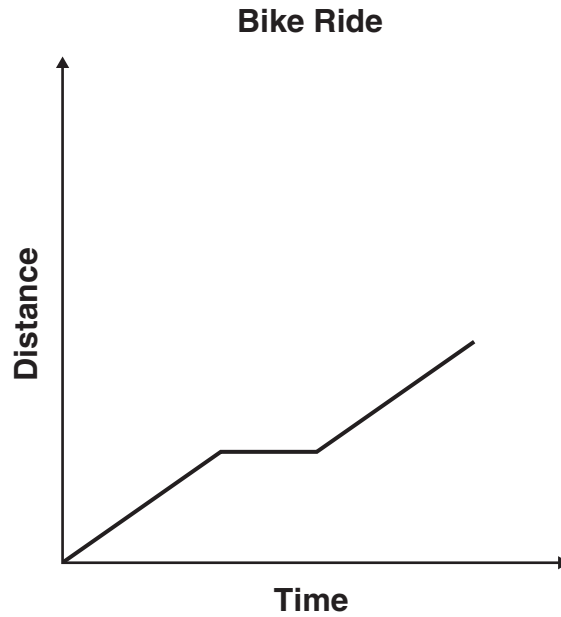
**F**  $-3$

**G**  $-4$

**H**  $-5$

*Go On ►*

**47** Look at this graph.



Which situation could be represented by this graph?

- A** Shellie rode her bike at a slow rate, stopped for a while, and then rode her bike at a faster rate.
- B** Shellie rode her bike at a fast rate, stopped for a while, and then rode her bike at a slower rate.
- C** Shellie rode her bike at a steady rate, stopped for a while, and then rode her bike at the same rate.

- 48** Three functions are shown.

$$g(x) = 10^x$$

$$h(x) = x^2 - 25$$

$$f(x) = -2$$

Based on these functions, which statement is true?

- F** Function  $g(x)$  is linear because the function is increasing at a constant rate.
- G** Function  $h(x)$  is nonlinear because the exponent of  $x$  is greater than one.
- H** Function  $f(x)$  is nonlinear because there is no slope.

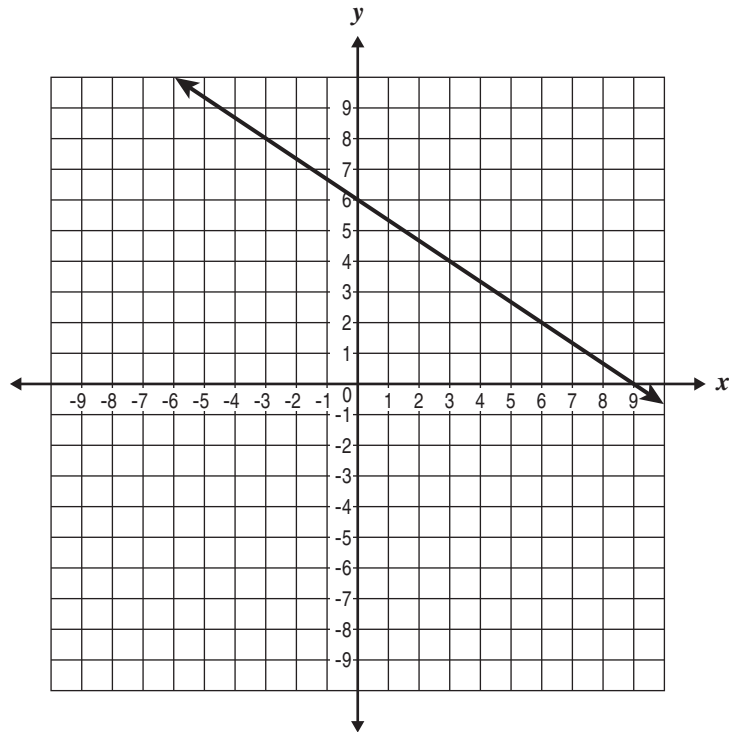
- 49** What is the value of this expression?

$$\frac{16 \times 10^{-6}}{4 \times 10^2}$$

- A**  $4 \times 10^{-3}$
- B**  $4 \times 10^{-4}$
- C**  $4 \times 10^{-8}$

*Go On ►*

**50** Look at this graph.



Which is closest to the slope of the line represented by this graph?

**F**  $-\frac{3}{2}$

**G**  $-\frac{2}{3}$

**H**  $\frac{2}{3}$

**51** What is the solution to this system of equations?

$$\begin{aligned}2x - 2y &= 10 \\ x + 4y &= 30\end{aligned}$$

- A** (0, 5)
- B** (10, 5)
- C** (50, -5)

**STOP** 

**DO NOT  
MARK  
ON THIS  
PAGE**

# Science



## Part 1

- 1** Students stir together sugar and salt. What do the students make when they stir the sugar and salt together?
- A** a mixture
  - B** a compound
  - C** a molecule

*Go On ►*

- 2** The picture shows a fungus and a classification key.

**Fungus**



**Fungus Classification Key**

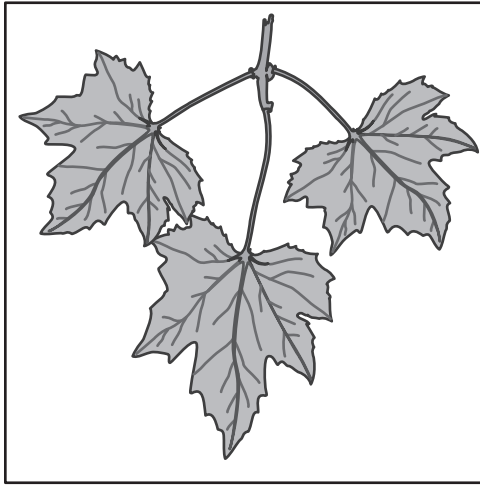
- |    |  |              |
|----|--|--------------|
| 1. | a. Grows on a tree like a shelf .....      | go to 2      |
|    | b. Grows on a stem out of the ground ..... | go to 3      |
| 2. | a. Pattern of semicircle stripes .....     | Turkey Tail  |
|    | b. No pattern .....                        | Beefsteak    |
| 3. | a. Has a round cap.....                    | Fly Agaric   |
|    | b. Has an irregular cap.....               | Common Morel |

**The picture shows which type of fungus?**

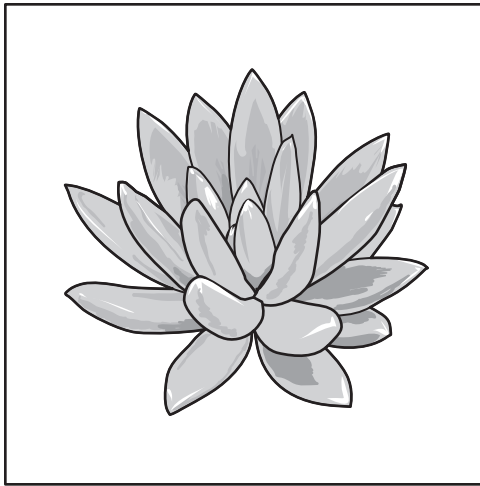
- F** Turkey Tail
- G** Beefsteak
- H** Fly Agaric

- 3** Which picture shows plant leaves that are adapted for a hot desert environment?

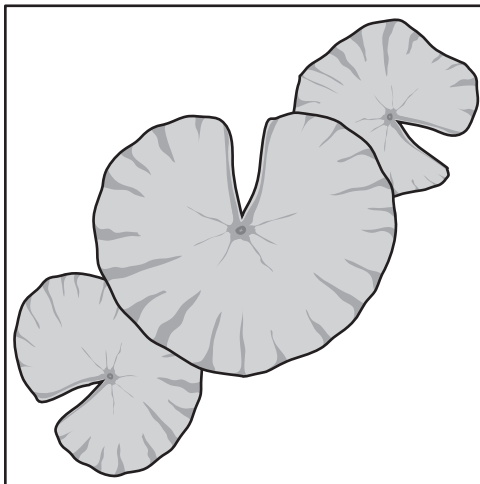
**A**



**B**

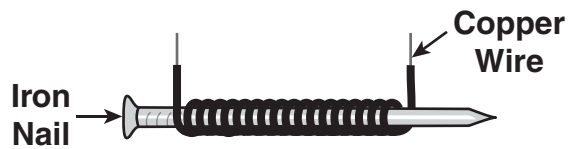


**C**



*Go On ►*

- 4** A student started building an electromagnet. The picture shows the student's work.



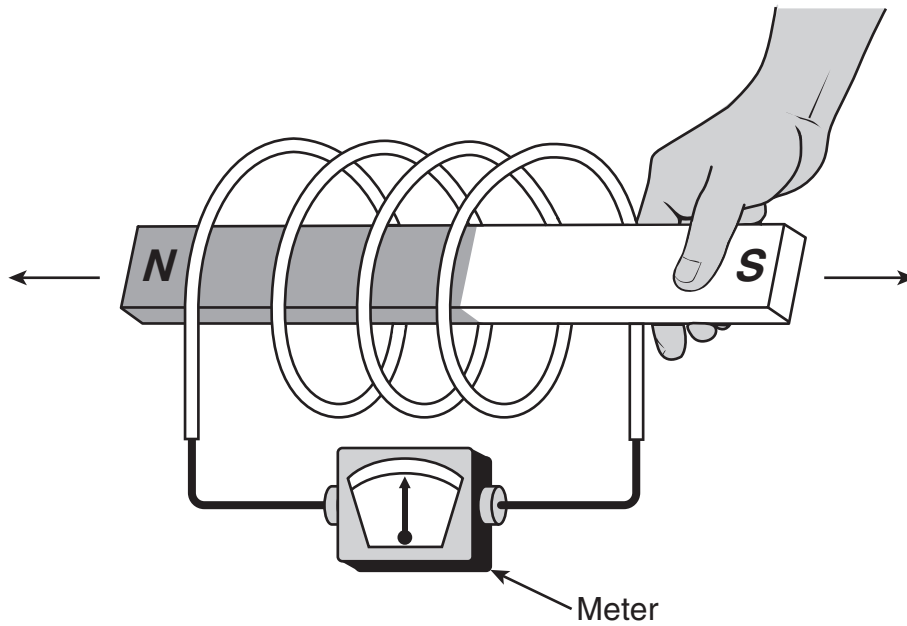
What object should the student add to this electromagnet to make it work?

- F** paper clip
- G** switch
- H** battery

- 5** What is the most basic unit of matter in an apple?

- A** an atom
- B** a tissue
- C** a molecule

- 6** A student attaches a meter to a wire coil. Next, the student moves a magnet back and forth through the coil.



What does the meter measure as the student moves the magnet back and forth?

- F** temperature
- G** current
- H** volume

*Go On ►*

- 7** A substance has a mass of 50 grams (g) and a volume of 10 cubic centimeters (cm<sup>3</sup>).

$$\text{Density} = \frac{\text{Mass}}{\text{Volume}}$$
$$D = \frac{m}{V}$$

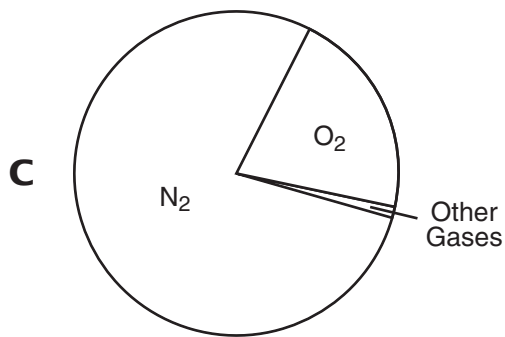
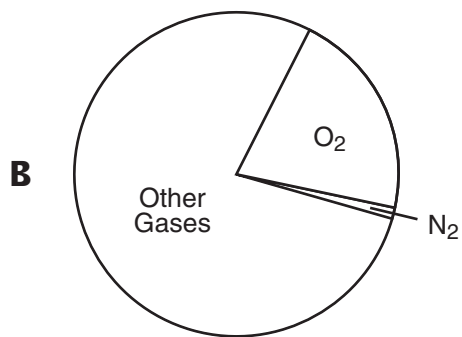
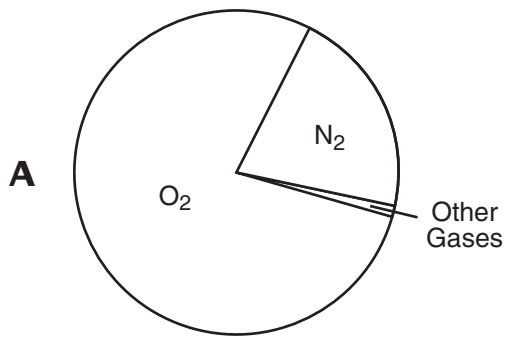
What is the density of the substance?

- A** 5 g/cm<sup>3</sup>
- B** 40 g/cm<sup>3</sup>
- C** 60 g/cm<sup>3</sup>

- 8** Which of these is a compound?

- F** Zn
- G** N<sub>2</sub>O
- H** H<sub>2</sub>

- 9** Which graph best represents the amounts of gases within the atmosphere of Earth?



*Go On ►*

10

# Periodic Table of Elements

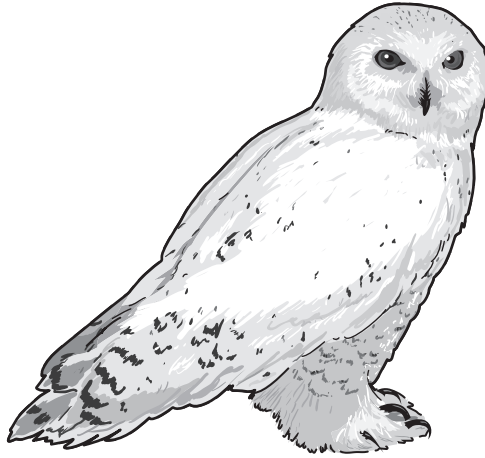
	1																	18
1	1 H 1.0	2											13	14	15	16	17	2 He 4.0
2	3 Li 6.9	4 Be 9.0											5 B 10.8	6 C 12.0	7 N 14.0	8 O 16.0	9 F 19.0	10 Ne 20.2
3	11 Na 23.0	12 Mg 24.3	3	4	5	6	7	8	9	10	11	12	13 Al 27.0	14 Si 28.0	15 P 31.0	16 S 32.0	17 Cl 35.5	18 Ar 40.0
4	19 K 39.1	20 Ca 40.1	21 Sc 45.0	22 Ti 48.0	23 V 50.9	24 Cr 52.0	25 Mn 54.9	26 Fe 55.8	27 Co 58.9	28 Ni 58.7	29 Cu 63.5	30 Zn 65.4	31 Ga 69.7	32 Ge 72.6	33 As 74.9	34 Se 79.0	35 Br 79.9	36 Kr 83.8
5	37 Rb 85.5	38 Sr 87.6	39 Y 88.9	40 Zr 91.2	41 Nb 92.9	42 Mo 95.9	43 Tc 98.0	44 Ru 101.1	45 Rh 102.9	46 Pd 106.4	47 Ag 107.9	48 Cd 112.4	49 In 114.8	50 Sn 118.7	51 Sb 121.8	52 Te 127.6	53 I 126.9	54 Xe 131.3
6	55 Cs 132.9	56 Ba 137.3	57-71	72 Hf 178.5	73 Ta 181.0	74 W 183.9	75 Re 186.2	76 Os 190.2	77 Ir 192.2	78 Pt 195.1	79 Au 197.0	80 Hg 200.6	81 Tl 204.4	82 Pb 207.2	83 Bi 209.0	84 Po 209.0	85 At 210.0	86 Rn 222.0
7	87 Fr 223.0	88 Ra 226.0	89-103	104 Rf 261	105 Db 262	106 Sg 263	107 Bh 262	108 Hs 265	109 Mt 266									
				57 La 138.9	58 Ce 140.1	59 Pr 140.9	60 Nd 144.2	61 Pm 145.0	62 Sm 150.4	63 Eu 152.0	64 Gd 157.3	65 Tb 158.9	66 Dy 162.5	67 Ho 164.9	68 Er 167.3	69 Tm 168.9	70 Yb 173.0	71 Lu 175.0
				89 Ac 227.0	90 Th 232.0	91 Pa 231.0	92 U 238.0	93 Np 237.0	94 Pu 244.0	95 Am 243.0	96 Cm 247.0	97 Bk 247.0	98 Cf 251.0	99 Es 252.0	100 Fm 257.0	101 Md 258.0	102 No 259.0	103 Lr 262.0

**Which two elements share the most similar chemical properties?**

- F** K and Kr  
**G** Be and Ba  
**H** S and Sn

- 11** The picture shows a snowy owl. Snowy owls have thick white feathers.

**Snowy Owl**

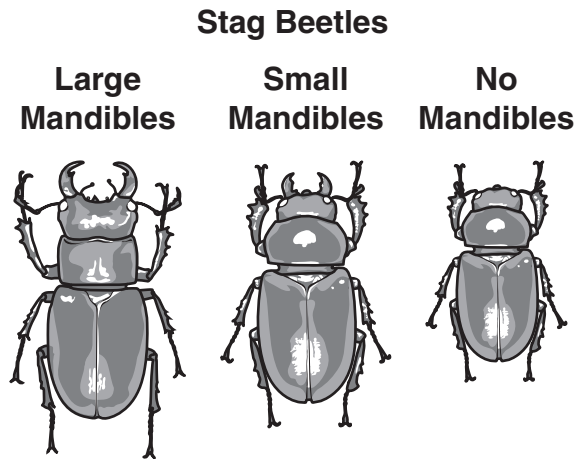


In which environment are snowy owls best suited to live?

- A** rain forest
- B** wetland
- C** Arctic tundra

*Go On ►*

- 12** The picture shows three stag beetles with different mandible types.



Male beetles with large mandibles are good at guarding tunnels where females have laid eggs. Males that have no mandibles are good at digging new tunnels to reach females. The table shows the numbers of male stag beetles with different mandible types in a population.

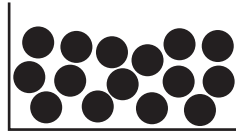
**Male Stag Beetles  
in Population**

Mandible Type	Number of Males
Large	100
Small	70
None	100

Which mandible type is likely to become less common in this population over time?

- F** Large
- G** Small
- H** None

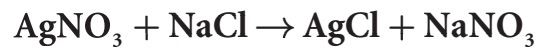
- 13** A substance has particles that are close together. The particles vibrate and slide past each other. The diagram shows how the particles are arranged.



What is the most likely state of matter of this substance?

- A** solid
- B** liquid
- C** gas

- 14** A chemical equation is shown.



Which substance is a reactant?

- F** NaCl
- G** AgCl
- H** NaNO<sub>3</sub>

- 15** Which of these affects the strength of the gravitational force between Earth and the sun?

- A** tilt of the axis of Earth
- B** distance between Earth and the sun
- C** amount of energy Earth receives from the sun

*Go On ►*

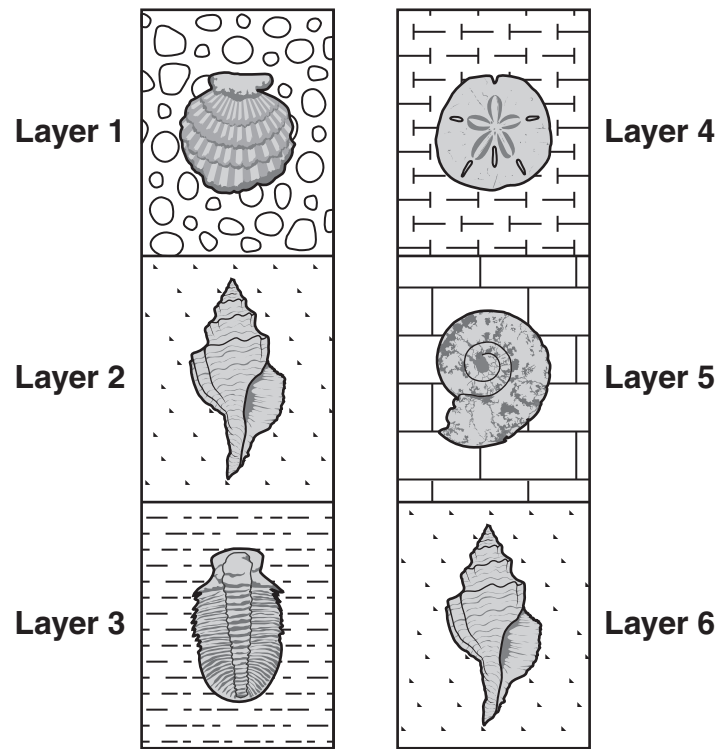
**16** A certain company makes emergency products. Workers in the company want to improve a type of warning light. They want the light to stay bright for a longer amount of time. The workers start thinking of ideas to improve the light. What is the next step in the design process?

- F** build a prototype of the new light
- G** decide on the best design for the new light
- H** explain what problem the new light helps solve

**17** Which lab tool and units are correct for students measuring the mass of an object?

- A** balance and kilograms
- B** spring scale and ounces
- C** electronic scale and newtons

- 18** The picture shows two columns of rock. Each column contains layers with fossils. The columns are located close to each other.

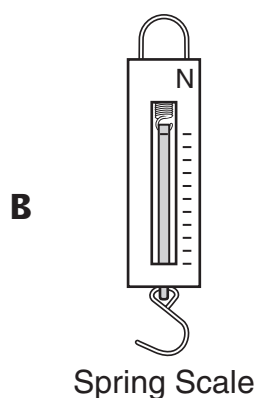
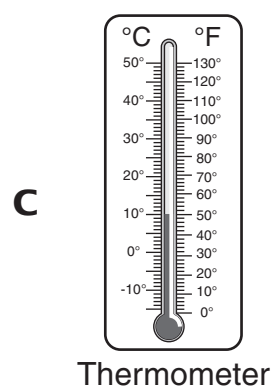
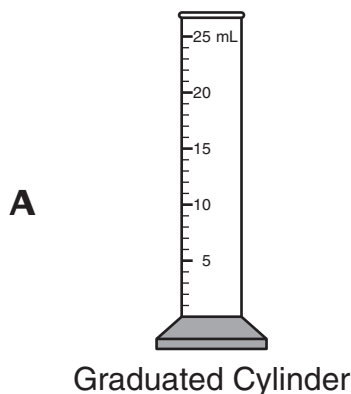


Which layers are most likely the same age?

- F** Layers 1 and 2
- G** Layers 2 and 5
- H** Layers 2 and 6

*Go On ►*

- 19** A teacher demonstrated a chemical reaction for her class. Which tool should the teacher use to show that the chemical reaction released heat?



- 20** Which characteristic do the elements hydrogen and oxygen have in common?

- F** They are both made up of atoms.
- G** They both have the same atomic number.
- H** They both have the same atomic mass.

**21** Why do scientists try to keep natural balances in animal populations?

- A** The balance helps maintain biodiversity.
- B** The balance helps control global temperatures.
- C** The balance stops diseases from spreading.

**22** Three elements on this periodic table of elements are shaded.

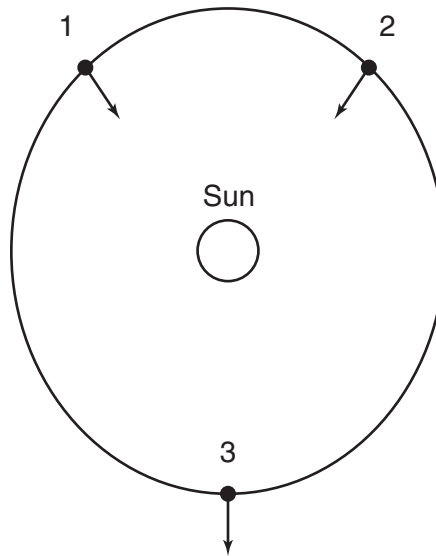
Periodic Table of the Elements																2	
1 H																He	
3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne
11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
55 Cs	56 Ba	57 La	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
87 Fr	88 Ra	89 Ac	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg							
		58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu		
		90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr		

Which property do the shaded elements have in common?

- F** All the shaded elements are noble gases.
- G** All the shaded elements are halogens.
- H** All the shaded elements are transition metals.

*Go On ►*

- 23** A student drew a picture of the orbit of Earth around the sun. The student drew Earth at three points in its orbit. The arrows are supposed to show the direction of the gravitational attraction between Earth and the sun.



Which arrow did the student draw incorrectly?

- A** 1
- B** 2
- C** 3

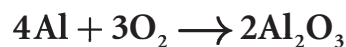
- 24** The picture shows a muskox. A muskox is a large mammal with short legs. A muskox is covered with long, thick hair. These features help a muskox from losing too much body heat.



In which environment is a muskox best suited to live?

- F** tundra
- G** grassland
- H** marine

- 25** Aluminum (Al) and oxygen ( $O_2$ ) reacted and produced aluminum oxide ( $Al_2O_3$ ).



The mass of the aluminum used was 15 grams. The mass of the oxygen used was 13 grams. What was the mass of aluminum oxide produced?

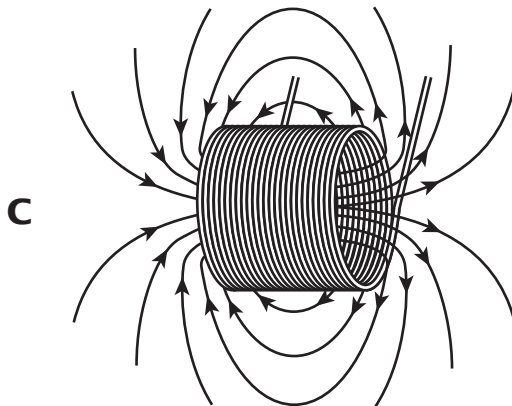
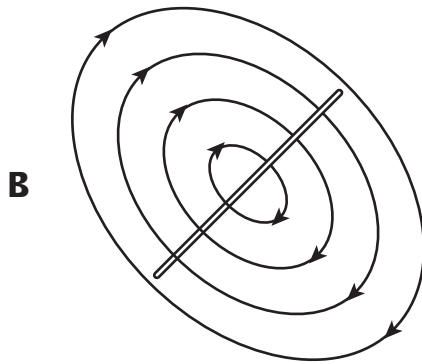
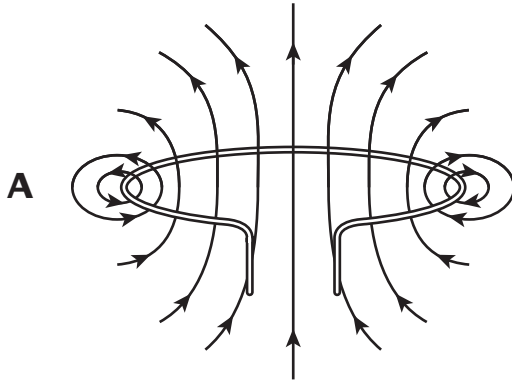
- A** 2 grams
- B** 28 grams
- C** 50 grams

*Go On ►*

**26** Students heated a white solid. The solid produced a flame during the heating process. The product of the heating process cooled into a black solid. Which sentence best describes this change?

- F** The change was physical because the properties of the substance were permanently changed.
- G** The change was chemical because the substance produced a flame when heated.
- H** The change was chemical because the state of the substance remained the same.

- 27** Which diagram shows a magnetic field most similar to the magnetic field of Earth?



*Go On ►*

**28** Lemon juice is acidic. How does lemon juice taste?

**F** bitter

**G** sour

**H** salty

**29** When coal is burned, a chemical reaction occurs that produces solid ash. Which of these best describes the ash that is produced from burning coal?

**A** The ash is a different state of matter than coal.

**B** The ash is the same material as coal.

**C** The ash is a substance with different properties from coal.

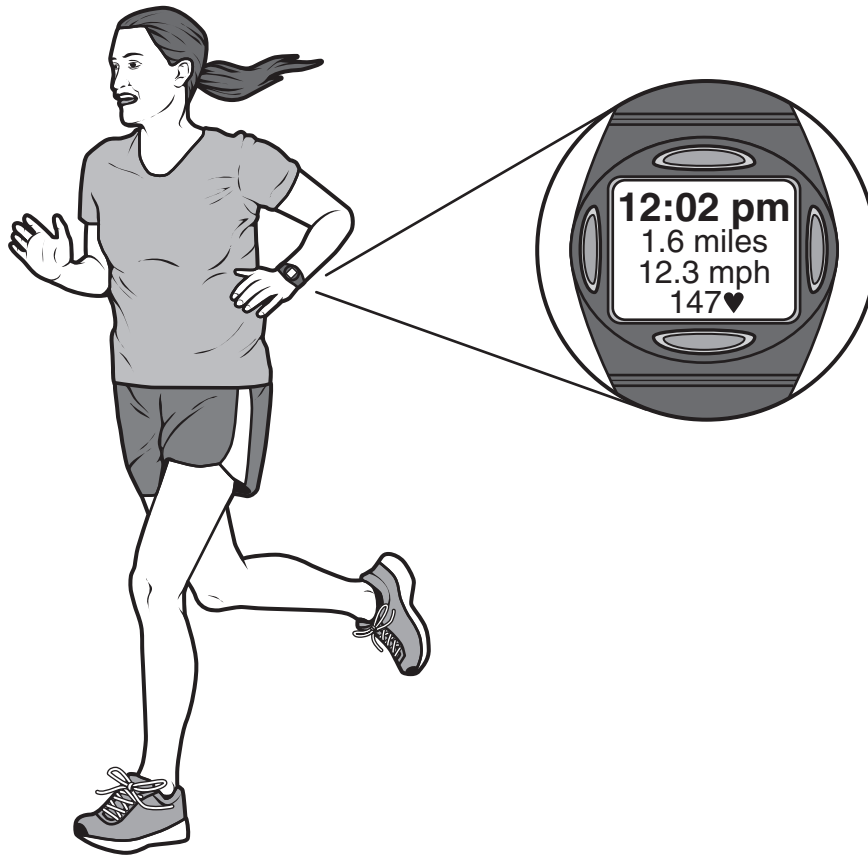
**30** Which of these is a compound and not a mixture?

**F** hot chocolate

**G** iced tea

**H** table salt

- 31** The picture shows a runner wearing a special watch. This type of watch shows the time of day. The watch can also measure the runner's speed and heart rate.



Which sentence best explains why this watch can be considered an adaptive technology?

- A** The watch helps athletes who want to improve their health.
- B** The watch is modified from a device used for another purpose.
- C** The watch is powered by disposable batteries.

**STOP** 

## Part 2

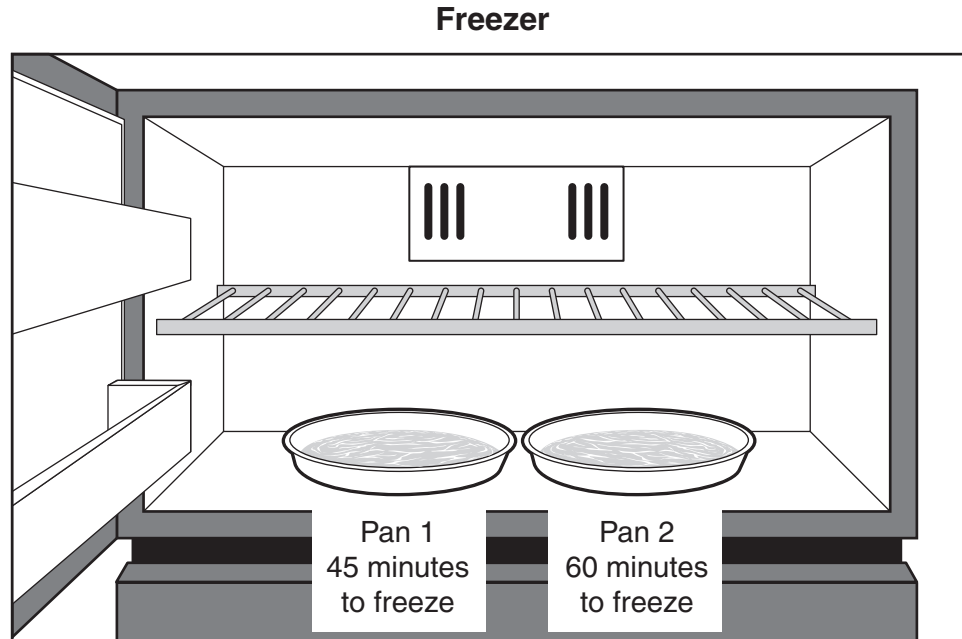
**32** Which of these is made of atoms?

- F** oxygen gas
- G** sunlight
- H** radio wave

**33** Which of these is directly affected by gravity?

- A** the rotation of Earth on its axis
- B** the orbit of the moon around Earth
- C** the magnetic field surrounding Earth

- 34** Students filled two identical pans with 20 milliliters of water each. The student placed both pans in the same freezer at the same time. The water in Pan 1 froze first.



Which conclusion best explains why the water in each pan froze in a different amount of time?

- F** The water in Pan 1 had a different starting temperature than the water in Pan 2.
- G** The water in Pan 1 had a lower final temperature than the water in Pan 2.
- H** The water in Pan 1 had a greater starting mass than the water in Pan 2.

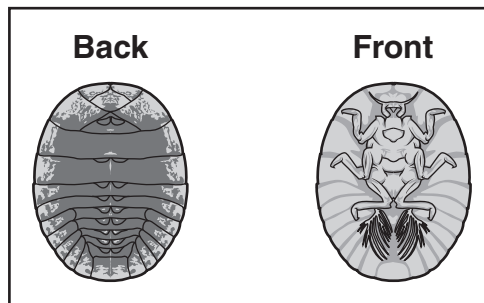
*Go On ►*

**35** How can the mass of an object be reduced from 60 kilograms to 10 kilograms?

- A** by removing matter from the object
- B** by weighing the object on the moon instead of Earth
- C** by measuring the object on a scale instead of on a balance

**36** The picture shows an organism and a classification key.

**Organism**



**Classification Key**

1. Long body in sections .....	go to 2
Oval-shaped body in sections .....	go to 3
2. One pair of legs per section .....	Centipede
Two pairs of legs per section .....	Millipede
3. No tail .....	Water Penny
Tail .....	Horseshoe Crab

**The picture shows which organism?**

- F** Centipede
- G** Water Penny
- H** Horseshoe Crab

**37** One student in a science lab has a mixture. Another student has a compound. Both students will separate the parts of their substances. Which best describes one result of the separation process?

- A** The compound will go through only a physical change.
- B** The mixture will release heat when its parts are separated.
- C** The compound must go through a chemical change to separate its parts.

**38** The diagram represents a group from the periodic table of elements.

17	
9	F
19.00	
17	Cl
35.45	
35	Br
79.90	
53	I
126.90	
85	At
(210)	

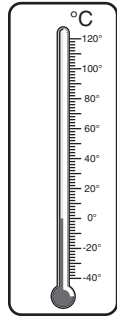
What is the atomic number of fluorine (F)?

- F** 9
- G** 17
- H** 19

*Go On ►*

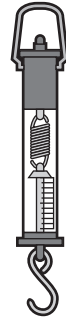
- 39** A team is building a prototype of an electromagnet that will be used to lift metal objects. The team wants to find out how much weight the electromagnet can hold. Which tool should the team use to find the weight of an object?

**A**



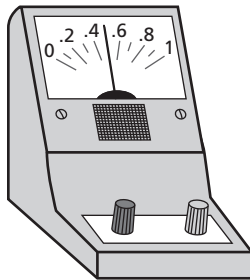
**Thermometer**

**C**



**Spring Scale**

**B**



**Voltmeter**

- 40** A piece of blue litmus paper is dipped in an acid. What color will the litmus paper become?

- F** red
- G** yellow
- H** green

**41** Which two gases together make up most of the atmosphere of Earth?

- A** oxygen and nitrogen
- B** nitrogen and carbon dioxide
- C** oxygen and water vapor

**42** A student is classifying substances based on their chemical formulas. The student lists the formulas for water and oxygen.



Which sentence correctly classifies these substances?

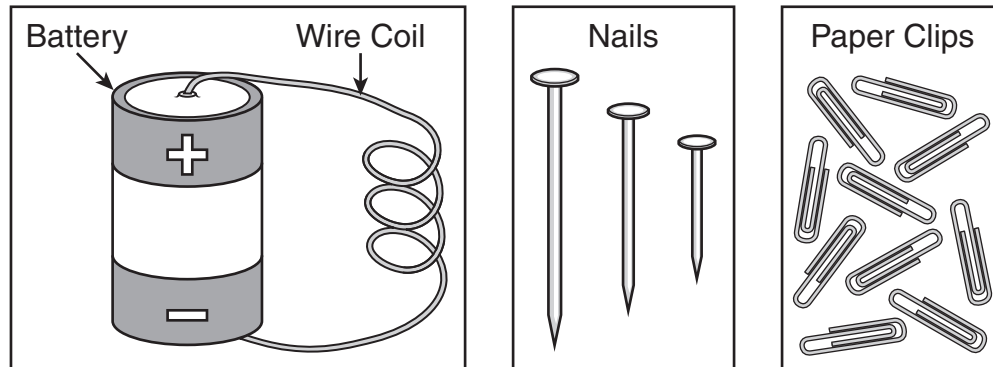
- F**  $\text{H}_2\text{O}$  and  $\text{O}$  are both elements.
- G**  $\text{H}_2\text{O}$  and  $\text{O}$  are both compounds.
- H**  $\text{H}_2\text{O}$  is a compound, and  $\text{O}$  is an element.

**43** A power company builds a dam on a river. Which of these is most likely the unintended consequence of building the dam?

- A** The life cycles of some fish will be disturbed.
- B** There will be more electricity for consumers.
- C** Fewer greenhouse gases will enter the atmosphere.

*Go On ►*

- 44** Students are building an electromagnet. The students want to see whether an electromagnet with a long nail will attract more paper clips than an electromagnet with a short nail. They use the same battery and wire coil for each nail. The pictures show the students' supplies.

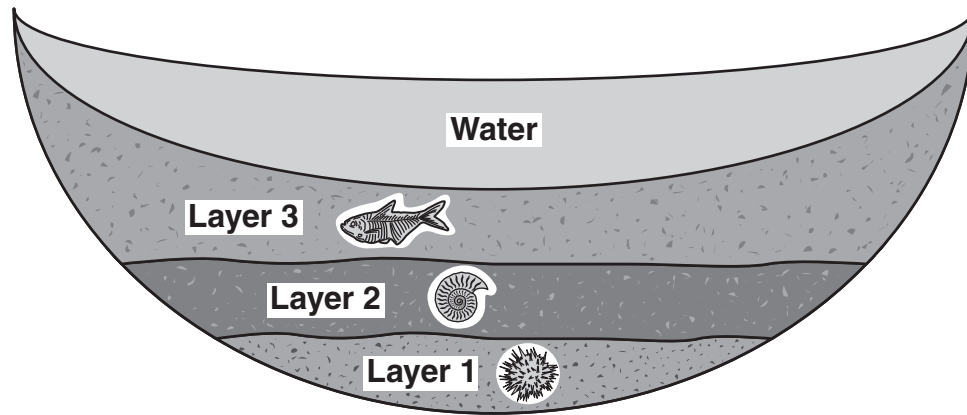


Which variable in this experiment is controlled?

- F** the length of the nail
  - G** the number of loops in the wire coil
  - H** the number of paper clips attracted
- 45** Which of these adaptations most helps a bear survive winter, a time period in which food is hard to find?

- A** sleeping for long periods of time
- B** having sharp claws
- C** eating both plants and animals

- 46** The picture shows three fossils in sediment layers at the bottom of a lake.



Which of these describes when the organism in Layer 3 was most likely alive?

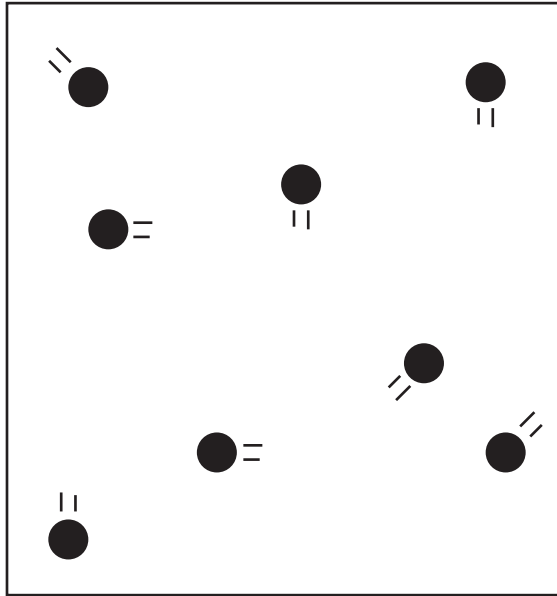
- F** before the organism in Layer 2 was alive
- G** after the organism in Layer 1 was alive
- H** when the organisms in the other layers were alive

- 47** Ammonia,  $\text{NH}_3$ , is a chemical that contains nitrogen and hydrogen. Which term best identifies ammonia?

- A** atom
- B** element
- C** compound

*Go On ►*

- 48** Particles in a substance are widely separated from each other and move independently from place to place. The diagram shows the arrangement of the particles.



What is the state of matter of this substance?

- F** solid
- G** liquid
- H** gas

- 49** The equation shows that hydrogen and oxygen combine and form water.

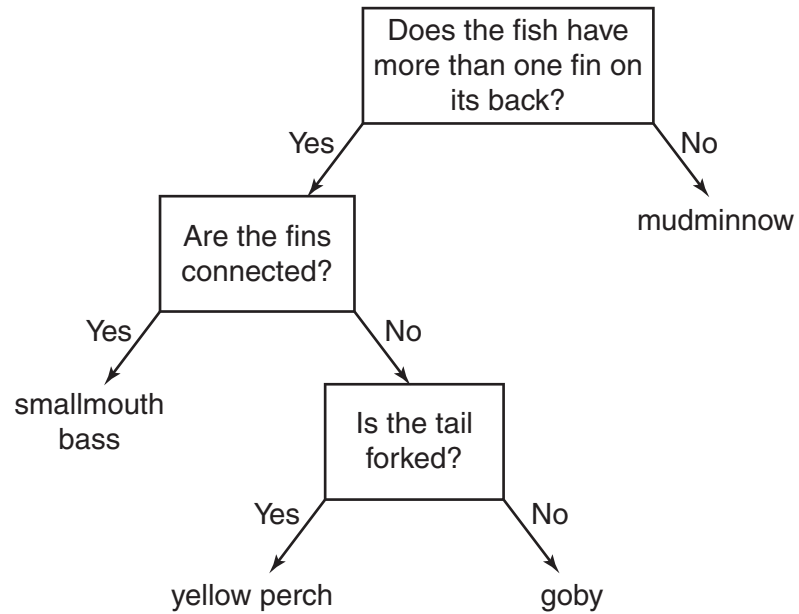
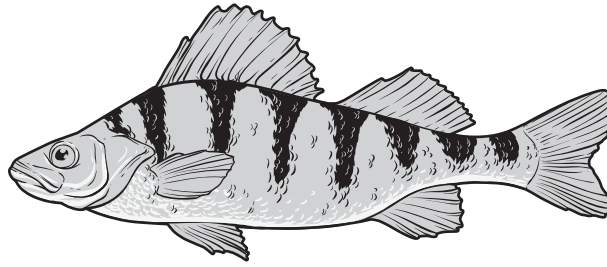


How is this reaction similar to all chemical reactions?

- A** Energy is released by the reaction.
- B** The product has different properties than the reactants.
- C** The reactants are in different states of matter than the product.

*Go On ►*

**50** The picture shows a fish and a classification key.



The picture shows which type of fish?

- F** mudminnow
- G** smallmouth bass
- H** yellow perch

**51** Which of these is an element and not a compound?

- A** CO<sub>2</sub>
- B** CaO
- C** Cl

**52** A marble has a mass of 40 grams and a volume of 20 cubic centimeters.

$$\text{Density} = \frac{\text{Mass}}{\text{Volume}}$$
$$D = \frac{m}{V}$$

What is the density of the marble?

- F** 0.5 gram/cubic centimeter
- G** 2.0 grams/cubic centimeter
- H** 60 grams/cubic centimeter

**53** Students observed a plant. They listed characteristics of the stem and leaves.

Stem — thick, fleshy, containing chlorophyll

Leaves — short, thin, and pointed

This plant is most likely adapted for which environment?

- A** rain forest
- B** grassland
- C** desert

*Go On ►*

- 54** Students experimented with dropping marbles into sand. The students wanted to find out whether large marbles made deeper dents in the sand than small marbles. The table shows some of their data.

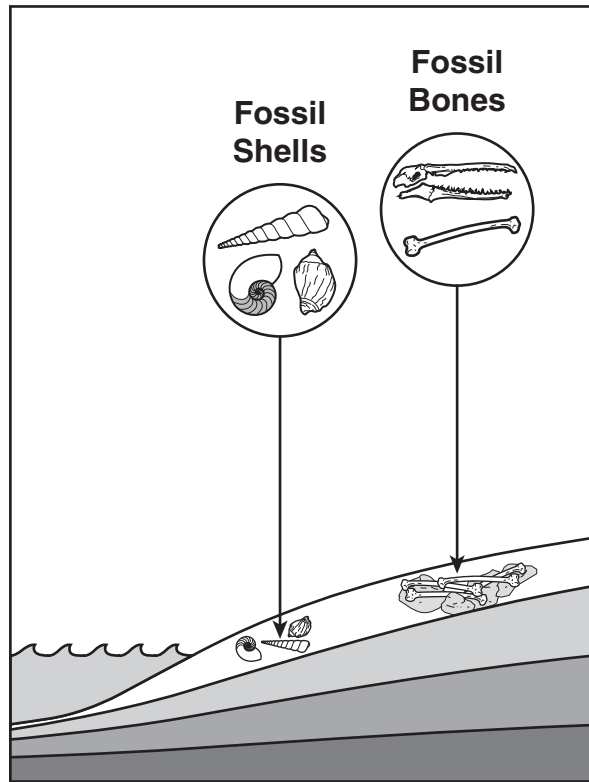
**Marble Dropping Investigation**

Marble	Marble Diameter (millimeters)	Height Marble was Dropped (meters)	Size of Dent in Sand (millimeters)
1	13	1.0	4
2	14	1.5	3
3	15	2.0	6
4	16	2.5	5

The students concluded that marble size did not affect the size of the dent. Which of these is the most likely reason this conclusion is flawed?

- F** The students should have used more than four marbles.
- G** The students should have dropped each marble from the same height.
- H** The students should have dropped the marbles in flour instead of sand.

- 55** The picture shows two locations where scientists discovered fossils.



The scientists concluded that the fossils at both locations were about the same age. Why did the scientists come to this conclusion?

- A** Both locations were in the same layer of rock.
- B** Both locations contained the same types of minerals.
- C** Both locations had the same number of organisms.

*Go On ►*

**56** A teacher burns a piece of magnesium. The burning magnesium produces a bright light. The burned magnesium leaves behind a white powder called magnesium oxide. Which best explains why burning magnesium results in a chemical reaction?

- F** The magnesium changes its appearance when burned.
- G** The magnesium changes its state of matter when burned.
- H** The magnesium produces a new substance when burned.

**57** A substance is a base. The substance most likely

- A** has a sour taste.
- B** feels slippery when mixed with water.
- C** reacts with limestone and produces a gas.

**58** An object has a mass of 20 grams and a density of 2 grams per cubic centimeter.

$$\text{Volume} = \frac{\text{Mass}}{\text{density}}$$
$$V = \frac{m}{d}$$

What is the volume of the object?

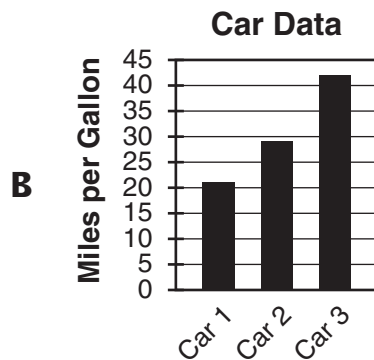
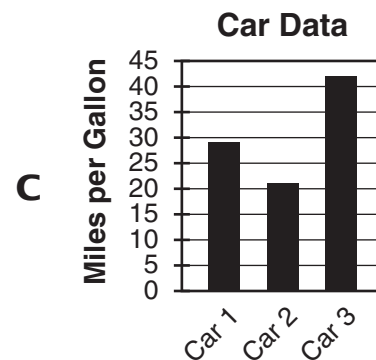
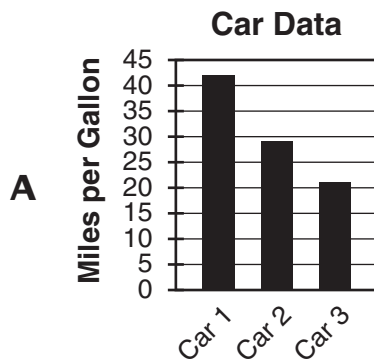
- F** 10 cubic centimeters
- G** 22 cubic centimeters
- H** 40 cubic centimeters

- 59** A student calculated the average number of miles three cars traveled per gallon of gas. The table shows the student's data.

**Car Data**

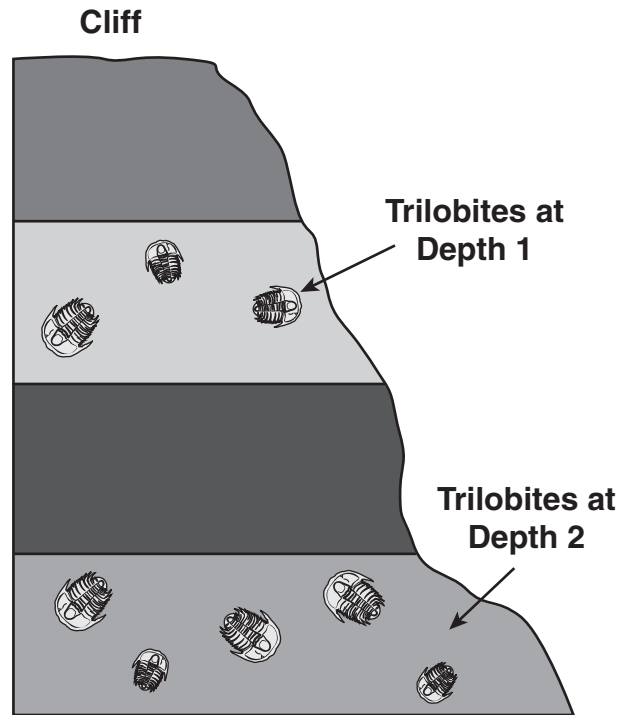
Car	Miles Traveled per Gallon of Gas
1	21
2	29
3	42

Which graph best represents the data in the table?



*Go On ►*

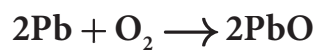
- 60** A scientist discovered trilobite fossils at two different depths in a cliff.



What can the scientist learn about these fossils based on their location in the cliff?

- F** the relative ages of the trilobite fossils
- G** the types of food living trilobites ate
- H** the numbers of other trilobite species still living

**61** This is a balanced chemical equation.



What is the product in this equation?

- A** Pb
- B** O<sub>2</sub>
- C** PbO

**STOP** 

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# Social Studies



## Part 1

### 1 Study the list.

#### Observations from Captain John Smith's Journal

- Large bay
- Varied wildlife
- Abundant fish

Historians would most likely use Captain John Smith's observations to

- A** study the climate of different regions in America.
- B** understand Native American hunting practices.
- C** learn about the natural resources of America.

*Go On ►*

**2** Study the information.

Congress shall make no law . . . [limiting] the freedom of speech, or of the press; or the right of the people to peaceably assemble, and to petition the government . . .

— First Amendment, United States Constitution

**Which action would violate the rights listed above?**

- F** arresting someone for criticizing the president
- G** entering a person's home without a warrant
- H** punishing an individual without a trial

**3** Study the definition.

*n.* — a set of practices and beliefs about the purpose of the universe

**Which word is being defined?**

- A** government
- B** language
- C** religion

**4** Study the information.

In 1732 I first published my Almanac under the name of *Richard Saunders*; it was continued by me about twenty-five years, and commonly called *Poor Richard's Almanac* . . . [selling] annually near ten thousand.

— Benjamin Franklin, *The Way to Wealth*, 1758

Which technology increased the availability of this book?

- F** printing press
- G** steam engine
- H** navigational compass

**5** Study the excerpt.

The first settlers, who put many European words on the map, also borrowed names from local tribes. They often mispronounced what they heard.

— National Geographic, 2009

Which culture's impact on the United States is described in the excerpt?

- A** African American
- B** Asian American
- C** Native American

*Go On* ►

**6** Study the map.



**Which factor influenced the migration shown on the map?**

- F** Native Americans wanted to relocate to areas that allowed freedom of religion.
- G** Native Americans relocated to land that was easier to farm.
- H** Native Americans were forced to relocate by the national government.

**7** Which headline best shows an action taken by the judicial branch?

**A**

**President Signs Trade  
Agreement**

**B**

**Supreme Court Rules  
Law Unconstitutional**

**C**

**Congress Meets to  
Discuss Laws**

*Go On ►*

**8** Study the chart.

The Olmec	The Quakers
Settled in the eastern Mexico lowlands in 1300 B.C.	Settled in English colonies starting in the mid-1600s
Spread to other parts of Mexico and Central America	First European settlers in the Pennsylvania colony
Worshiped up to 10 different gods	Believed in one God

**Which feature of the Quakers is different from the Olmecs?**

- F** settled in the Americas
- G** monotheism
- H** expansion to new lands

**9** Study the passage.

Every day . . . people . . . board the newly arrived ship that has brought, and offers for sale, passengers from Europe . . . adult persons bind themselves in writing to serve 3, 4, 5, or 6 years for the amount due by them, according to their age and strength.

— German migrant, 1750

Which type of migration to the American colonies is being described?

- A** laborers entering indentured servitude
- B** religious minorities escaping persecution
- C** slaves being imported

**10** Study the information.

Tom used all of his savings to purchase a car. He still does not have enough money for the car. Tom decides to get a bank loan and will make monthly payments for three years.

Based on the information, Tom increased his

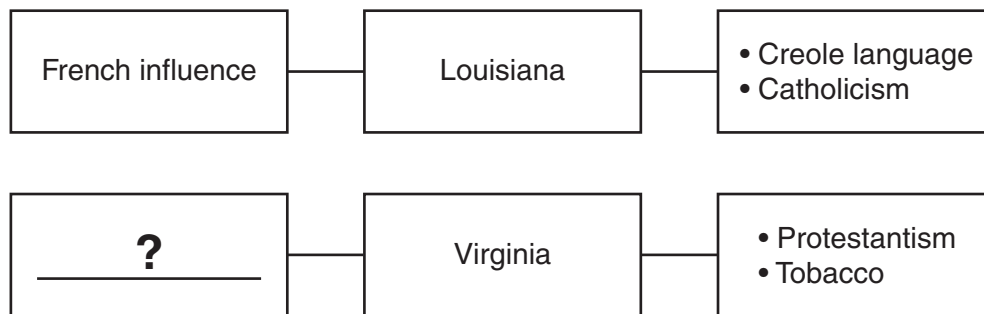
- F** debt.
- G** credit.
- H** income.

*Go On ►*

**11** Why is the United States government divided into three different branches?

- A** to reduce the number of elected representatives
- B** to encourage citizen participation in elections
- C** to prevent abuses of government authority

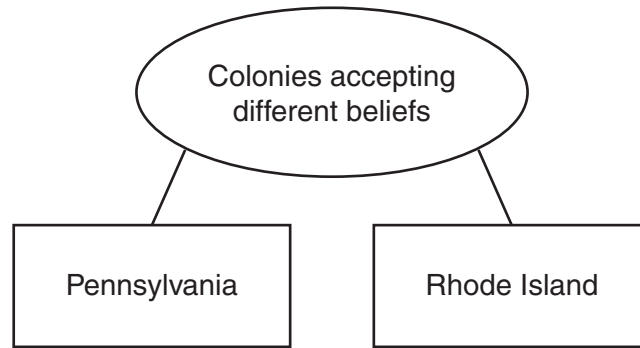
**12** Study the diagram.



Which phrase best completes the diagram?

- F** British influence
- G** German influence
- H** Native American influence

**13** Study the diagram.

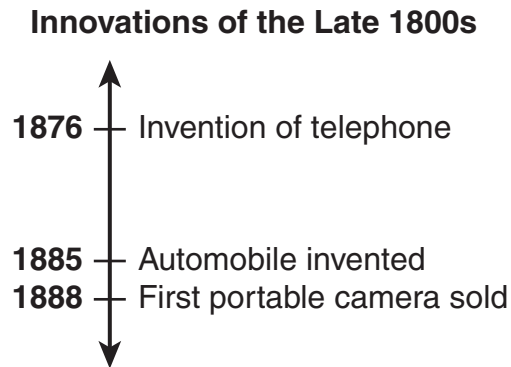


Which factor explains this situation?

- A** geography
- B** religion
- C** economics

*Go On ►*

**14** Study the timeline.



**During which year were Americans first able to talk over long distances?**

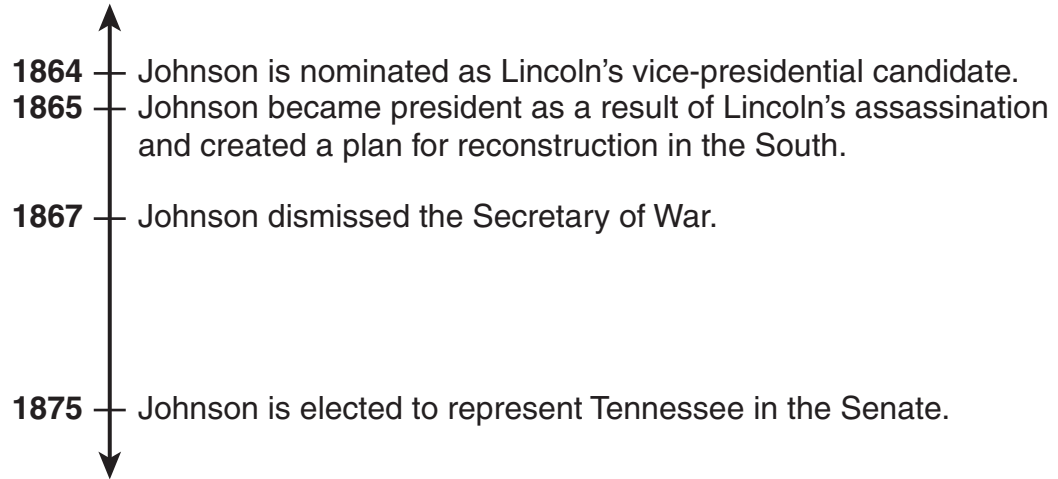
- F** 1876
- G** 1885
- H** 1888

**15** How did James K. Polk contribute to the growth of the United States?

- A** He purchased the Louisiana Territory from the French.
- B** He gained territory during the Mexican-American War.
- C** He encouraged settlement in the Ohio River Valley.

**16** Study the timeline.

**Andrew Johnson's Political Career**



**Which event happened after Andrew Johnson created a plan for reconstruction in the South?**

- F** Johnson was nominated as Lincoln's vice-presidential candidate.
- G** Johnson became president of the United States.
- H** Johnson dismissed the Secretary of War.

*Go On ►*

**17** Study the excerpt.

Machinery is now in actual operation in the United States, for printing cotton and linen cloths, by engraved rollers of copper, moved by water. Ten thousand yards have been printed, with ease in a single day . . .

— Tench Coxe, 1812

Which conclusion is best supported by this 1800s quotation?

- A** Rising copper prices increased the cost of factory manufacturing.
- B** Demand for cotton led to increased wages for farm workers.
- C** Industrial advancements led to an increase in cloth production.

**18** Study the excerpt.

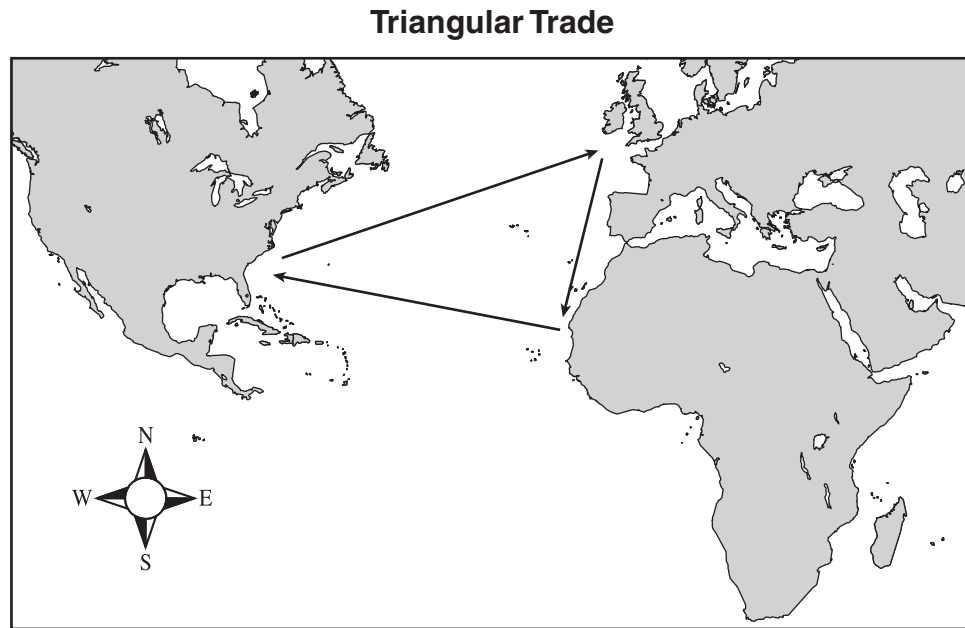
Having undertaken for the . . . Advancement of the Christian Faith, and the [Honor] of our King and Country . . . Do by these Presents . . . frame, such just and equal Laws, Ordinances, Acts, Constitutions, and Officers . . . for the general Good of the Colony . . .

— The Mayflower Compact, 1620

This document was created to

- F** maintain social order.
- G** encourage free trade.
- H** guarantee free speech.

**19** Study the map.



**This trade pattern helped develop the South's economy by supplying**

- A** merchants with precious metals.
- B** plantation owners with slave laborers.
- C** factory owners with raw materials.

*Go On ►*

**20** Study the chart.

Aztecs in Central America	Cherokees in North America
Earliest contact with Europeans came in the 1500s when the Spanish entered present-day Mexico	Earliest contact with Europeans came in the 1500s when the English entered the southeastern area of North America
Established schools for boys who were older than 10	Used storytellers as a way to pass traditions down to the younger generation
Economy based on farming, craftwork and trade	Traditional economy was based on hunting, fishing, and farming

**Which statement is true about the Aztecs and the Cherokees?**

- F** Both civilizations lived in the Americas before European colonization.
- G** Spain conquered both Native American civilizations.
- H** Fishing was the main focus of both economies.

**21** Study the list.

**Primary Sources**

- Helen Keller's diary
- \_\_\_\_\_

**Which work completes the list?**

- A** History book about the Revolutionary War
- B** Constitution of the State of Tennessee
- C** Magazine article about George Washington

**22** Study the chart.

**Slave Population in the  
American Colonies, 1730 – 1770**

Year	North	South
1730	17,323	73,698
1750	30,222	206,198
1770	48,460	411,362

**Based on the information in the chart, which conclusion can be made about the colonies?**

- F** Southern lawmakers limited the sale of slaves.
- G** Northern industries relied on many unskilled workers.
- H** Southern plantations required many laborers.

**23** Study the list.

- Source of funding for government
- Charged on items traded within the country

**What is described by the list?**

- A** income tax
- B** excise tax
- C** tariff

*Go On ►*

**24** Which action must United States citizens do?

- F** pay government taxes
- G** vote in elections
- H** serve on town councils

**25** Study the map.



Which number identifies an island?

- A** 1
- B** 2
- C** 3

**26** Study the timeline.



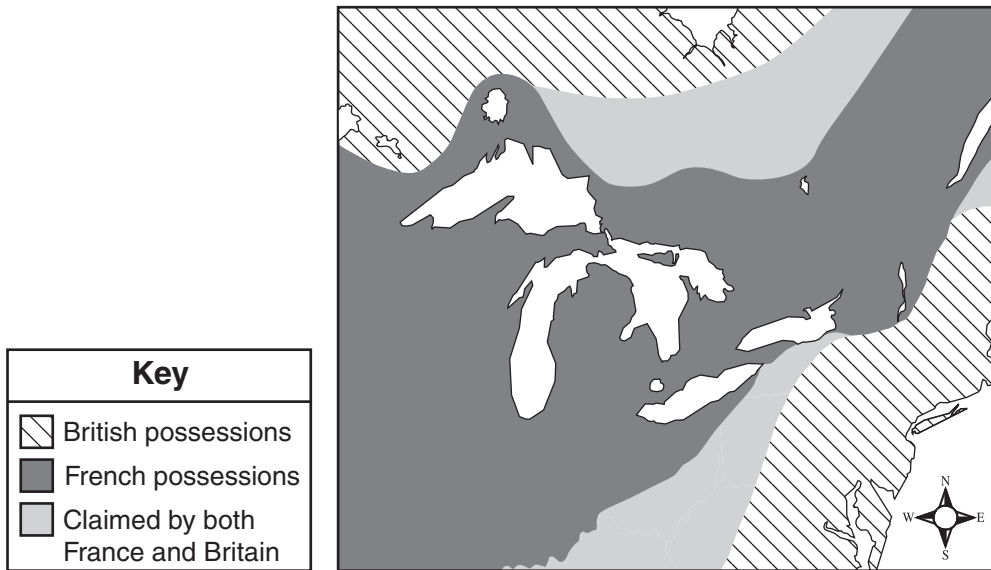
Which event happened after the first settlers traveled the Oregon Trail?

- F** The United States purchases the Louisiana Territory.
- G** Gold is discovered in California.
- H** Americans begin to use the Santa Fe Trail.

*Go On ►*

**27** Study the map.

**The Great Lakes Region before  
the French and Indian War**



**Based on the map, what was one cause of the French and Indian War?**

- A** disagreement over colonial boundaries
- B** refusal to provide protection for the colonies
- C** colonial desire for self-government

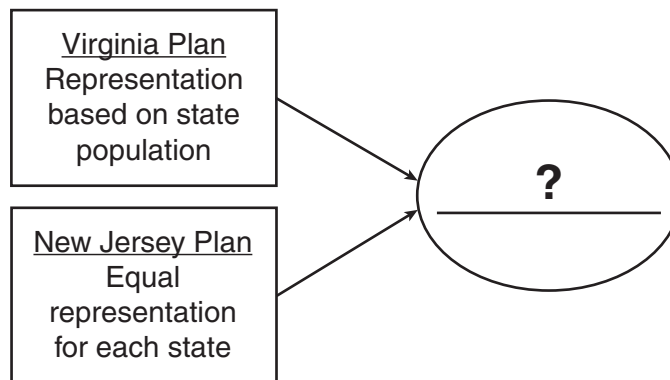
**28** Study the information.

Alexander Hamilton urged the U.S. Congress to pass a tariff on foreign goods.

What was the most likely purpose of this tariff?

- F** to promote foreign trade
- G** to protect local industries
- H** to raise the price of farm goods

**29** Study the diagram.



Which event completes the diagram?

- A** The Civil War
- B** The Great Compromise
- C** The Missouri Compromise

*Go On ►*

**30** Which example is a primary source?

- F** a letter written by a Revolutionary soldier
- G** an encyclopedia entry about the Middle Colonies
- H** a movie about the Civil War

**31** Study the information.

[The King] has forbidden his Governors to pass Laws of immediate and pressing importance . . . He has kept among us, in times of peace, Standing Armies . . .

— Declaration of Independence

These statements were used to justify which conflict?

- A** the French and Indian War
- B** the Revolutionary War
- C** the War of 1812

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## Part 2

**32** Which phrase best describes one consequence of westward expansion?

- F** decline of urban areas
- G** removal of native peoples
- H** lack of industrial growth

**33** Which event was a result of General Robert E. Lee's surrender?

- A** the negotiation of the Missouri Compromise
- B** the enforcement of the Monroe Doctrine
- C** the passage of the Reconstruction Acts

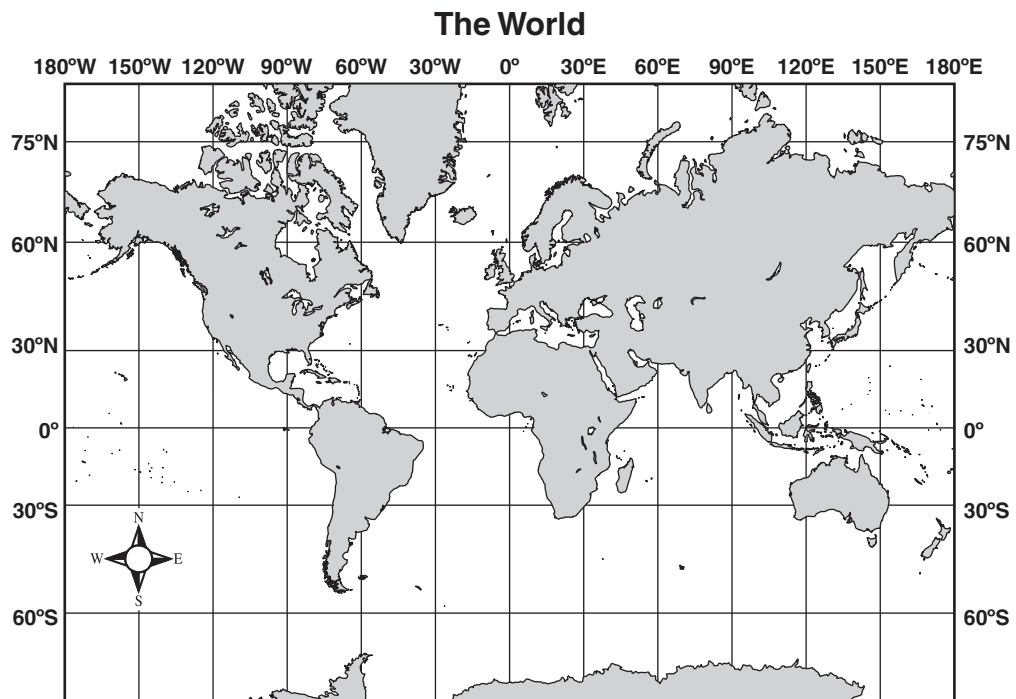
**34** Which item is the best example of a primary source from the Civil War?

- F** a letter written by a soldier during the Battle of Vicksburg
- G** a newspaper article on the anniversary of the Battle of Gettysburg
- H** a biography of a slave escaping to the North

**35** In which situation would a person be protected by the Fourth Amendment?

- A** A person refuses to let the police search her home without a warrant.
- B** A person is unable to vote due to a felony conviction.
- C** A person's credit rating prevents him from buying a new home.

**36** Study the map.



Which continent is located at latitude 60°N and longitude 120°E?

- F** North America
- G** Asia
- H** South America

*Go On ►*

**37** Study the list.

\_\_\_\_\_ ?

- introduction of the rifle
- spread of Christian beliefs

Which title best completes the list?

- A** Effects of the American Revolution
- B** Impact of Early European Settlers on Native Americans
- C** Benefits of the Louisiana Purchase

**38** Study the information.

The Know-Nothing Party was a political party active in the United States during the 1850s. The Know-Nothings attempted to slow down immigration, especially those who were German and Irish Catholic immigrants.

Based on the information, the Know-Nothing Party was an example of early American

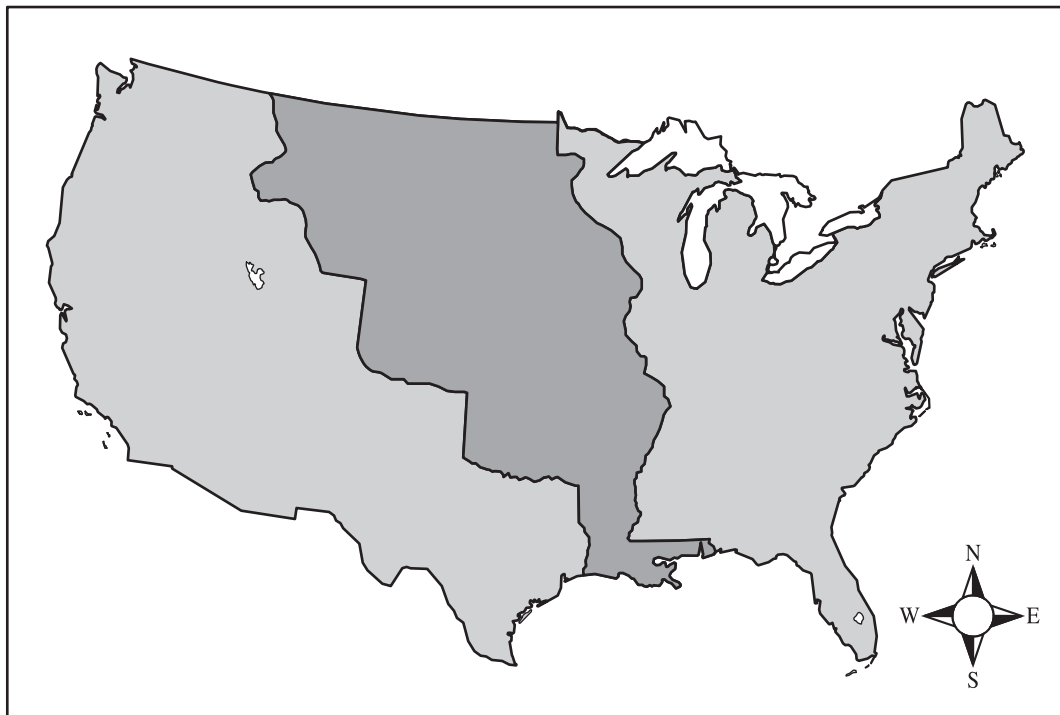
- F** prejudice.
- G** temperance.
- H** altruism.

**39** In 1999, a writer who wrote a book about Andrew Jackson created a

- A** primary source.
- B** personal journal.
- C** secondary source.

**40** Study the map.

**Louisiana Purchase, 1803**



**Which effect did the Louisiana Purchase have on the United States?**

- F** increased access to natural resources
- G** decreased threat of foreign attacks
- H** reduced immigration to cities

*Go On ►*

- 41** Which statement best describes the Southern economy by the mid-1800s?
- A** Southern agricultural production was highly dependent on slave laborers.
  - B** Southern citizens benefited from the selection of abolitionist candidates.
  - C** Southern states experienced financial success from the discovery of oil.

- 42** Which statement best describes activities in a subsistence economy?
- F** Government limits the amount of goods being imported.
  - G** Farmers produce just enough goods to support their families.
  - H** Consumers purchase items at a reduced price.

- 43** Which issue was addressed in the U.S. Supreme Court case *McCulloch v. Maryland*?
- A** equal opportunities in schools
  - B** powers of Congress
  - C** expansion of slavery in the West

**44** Which factor most encouraged the growth of slavery in the South?

- F** development of fishing industries
- G** moderate climates for farming
- H** employment opportunities in factories

**45** Study the information.

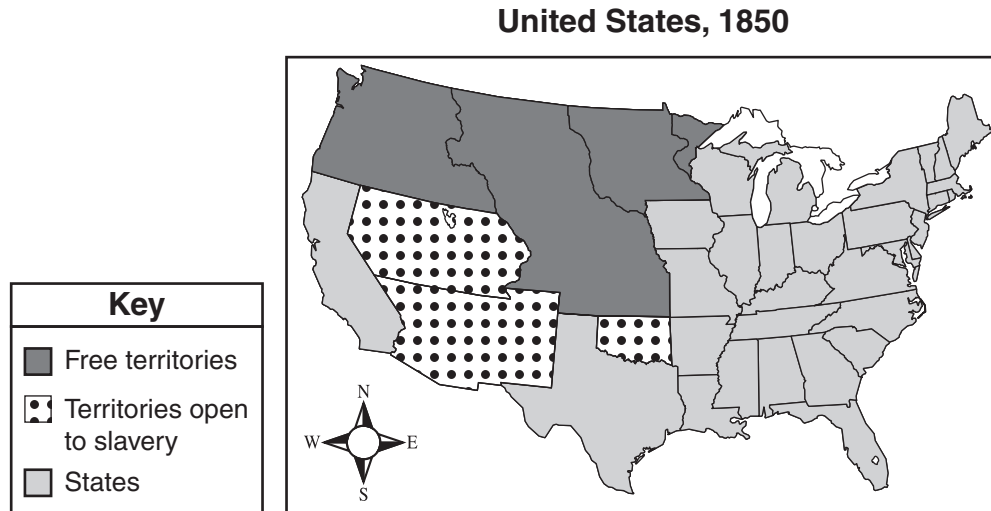
In 1776, Thomas Paine published a pamphlet titled *Common Sense*. It was widely read by American colonists and clearly explained Paine's view that the British government had abused its authority in the colonies.

What was the most likely purpose of Thomas Paine's *Common Sense*?

- A** to reduce the size of colonial militias
- B** to justify the taxing of the colonists
- C** to encourage colonists to fight for independence

*Go On ►*

**46** Study the map.



**What was one effect of the westward expansion shown on this map?**

- F** reduction in the use of slave labor
- G** declining influence of antislavery groups
- H** debates over the growth of slavery

**47** Study the list.

- Increased industrial employment opportunities
- Increased immigration from European countries

Which result did these factors have on the United States during the late 1800s?

- A** growth of urban areas
- B** creation of new religions
- C** loss of power by state governments

**48** Study the Supreme Court decision.

[F]ree speech would not protect a man in falsely shouting fire in a [theater] and causing a panic. . . . The question in every case is whether the words used . . . create a clear and present danger . . .

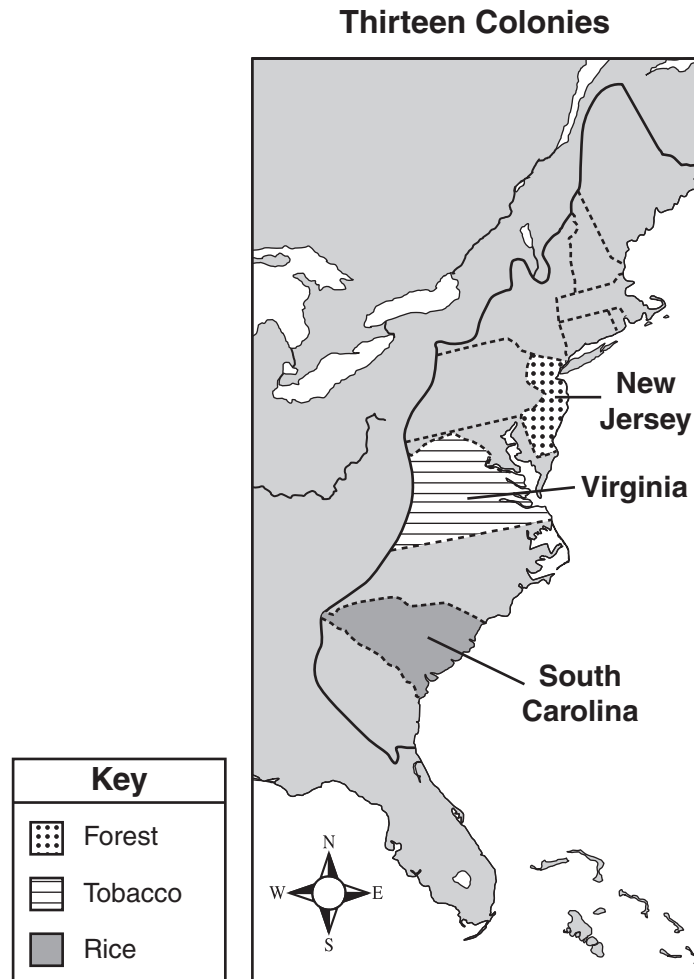
— *Schenck v. United States*

What was the effect of this Supreme Court decision?

- F** It limited the right to peaceful protests.
- G** It balanced the protection of rights with public order.
- H** It protected people who disagreed with the government.

*Go On ►*

**49** Study the map.



Which colony's economy most depended on the harvesting of timber?

- A** New Jersey
- B** Virginia
- C** South Carolina

**50** During the 1800s, which group was best known for helping runaway slaves in the United States?

- F** plantation owners
- G** Quakers
- H** southern politicians

**51** Study the table.

**Electoral Votes in the 1860 Presidential Election**

<b>Candidate</b>	<b>All States</b>	<b>Free States (18)</b>	<b>Slave States (15)</b>
Lincoln	180	180	0
Opposition to Lincoln (Douglas, Breckinridge, and Bell)	123	3	120

**Which conclusion can be made about the 1860 presidential election?**

- A** Lincoln had supporters from free and slave states.
- B** The free and slave states held different political views.
- C** Free states had fewer votes than slave states.

*Go On ►*

**52** Study the information.

The Molasses Act of 1733 forced American colonists to pay taxes on sugar and molasses that was not purchased from the British West Indies.

**What was the purpose of the Molasses Act of 1733?**

- F** to establish a British monopoly on molasses
- G** to promote free trade among the American colonies
- H** to protect the profits of French molasses manufacturers

**53** Study the information.

Quakers . . . forbid any act that acknowledged the right of slavery. Quaker meetings in western New York advised [Quakers] not to use any product — no cotton cloth, no white sugar — made with the unpaid labor of slaves. Good Quakers used maple sugar in their coffee.

— Christopher Densmore, Historian, 1996

**Which action is promoted in this excerpt?**

- A** declining to sell items to runaway slaves
- B** speaking publicly about opposition to slavery
- C** refusing to purchase goods produced by slaves

**54** Study the chart.

**Urban Places in the United States, 1800**

Place	Population
New York City, NY	60,515
Baltimore, MD	26,514
Charleston, SC	18,824
Northern Liberties township, PA	10,718
Southwark district, PA	9,621

Source: U.S. Census Bureau

**Which urban place had fewer residents than Charleston, SC?**

- F** Baltimore, MD
- G** New York City, NY
- H** Southwark district, PA

**55** Study the excerpt.

All men have a natural . . . right to worship Almighty God . . . no human authority can, in any case whatever, control or interfere with the rights of conscience . . .

— Constitution of the Commonwealth of Pennsylvania, 1776

**This excerpt from the Pennsylvania Constitution was guaranteeing**

- A** religious tolerance in the colony.
- B** a church hierarchy.
- C** peaceful relations with natives.

*Go On ►*

**56** Study the excerpt.

I suggest . . . setting apart [a large] district west of the Mississippi . . . to be guaranteed to the Indian tribes as long as they shall occupy it . . .

— Andrew Jackson's First Annual Message to Congress,  
1829

**This information shows that President Jackson wanted to**

- F** educate Native Americans.
- G** cultivate tribal lands.
- H** relocate Native Americans.

**57** Which early profession is an example of free competition in the American colonies?

- A** governor in Virginia
- B** indentured servant in Connecticut
- C** shoemaker in Massachusetts

**58** Study the headline.

**Department of Health and  
Human Services Will Host  
Meeting at Local Auditorium**

The main purpose of the department discussed in the headline is to

- F** maintain social order.
- G** ensure the well-being of citizens.
- H** guarantee freedom of speech.

*Go On ►*

**59** Study the photograph.

**Environmental Protest**



© Ryan Rodrick Beiler/Stockphoto #15621104

Which group are these protesters most likely trying to influence?

- A** law enforcement officers
- B** local public educators
- C** elected legislators

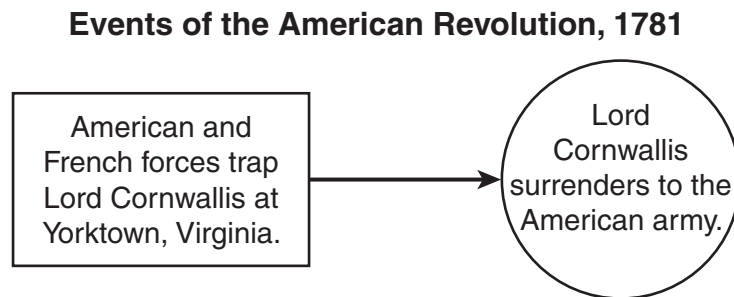
**60** Study the information.

Secondary Source — \_\_\_\_\_ ?

Which example would replace the question mark?

- F** a map drawn by Lewis and Clark
- G** a photograph taken during the Civil War
- H** a book written about George Washington

**61** Study the diagram.



Which statement is best supported by this diagram?

- A** Foreign generals had knowledge of the territory during the Revolutionary War.
- B** Colonial merchants supplied both sides during the Revolutionary War.
- C** Alliances helped bring an end to the Revolutionary War.

**STOP** 

## Reading/Language Arts Answer Key

1	C
2	F
3	C
4	F
5	A
6	G
7	B
8	H
9	B
10	F
11	A
12	G
13	C
14	G
15	C
16	G
17	B
18	G
19	C

20	F
21	A
22	H
23	A
24	G
25	C
26	H
27	B
28	H
29	C
30	H
31	B
32	G
33	B
34	G
35	A
36	F
37	A
38	F

39	C
40	G
41	C
42	H
43	B
44	F
45	B
46	H
47	A
48	G
49	A
50	F
51	B
52	G
53	C
54	F
55	B
56	F
57	B

58	G
59	A
60	F
61	C
62	H
63	A
64	G
65	B
66	F
67	B
68	H
69	C
70	H
71	A
72	H
73	A

# Mathematics

## Answer Key

1	A
2	H
3	C
4	G
5	A
6	H
7	B
8	H
9	B
10	H
11	A
12	G
13	B

14	F
15	C
16	H
17	B
18	F
19	A
20	H
21	B
22	G
23	A
24	H
25	A
26	F

27	C
28	F
29	B
30	G
31	C
32	F
33	C
34	F
35	B
36	G
37	A
38	F
39	C

40	G
41	A
42	G
43	B
44	H
45	C
46	F
47	C
48	G
49	C
50	G
51	B

*Go On ►*

## Science Answer Key

1	A
2	F
3	B
4	H
5	A
6	G
7	A
8	G
9	C
10	G
11	C
12	G
13	B
14	F
15	B
16	G

17	A
18	H
19	C
20	F
21	A
22	H
23	C
24	F
25	B
26	G
27	C
28	G
29	C
30	H
31	B
32	F

33	B
34	F
35	A
36	G
37	C
38	F
39	C
40	F
41	A
42	H
43	A
44	G
45	A
46	G
47	C
48	H

49	B
50	H
51	C
52	G
53	C
54	G
55	A
56	H
57	B
58	F
59	B
60	F
61	C

## Social Studies Answer Key

1	C
2	F
3	C
4	F
5	C
6	H
7	B
8	G
9	A
10	F
11	C
12	F
13	B
14	F
15	B
16	H

17	C
18	F
19	B
20	F
21	B
22	H
23	B
24	F
25	C
26	G
27	A
28	G
29	B
30	F
31	B
32	G

33	C
34	F
35	A
36	G
37	B
38	F
39	C
40	F
41	A
42	G
43	B
44	G
45	C
46	H
47	A
48	G

49	A
50	G
51	B
52	F
53	C
54	H
55	A
56	H
57	C
58	G
59	C
60	H
61	C

*Go On ►*



**Tennessee Comprehensive Assessment Program**  
**Modified Academic Achievement Standards ~ Grade 8**  
**Practice Test**  
**Version B**